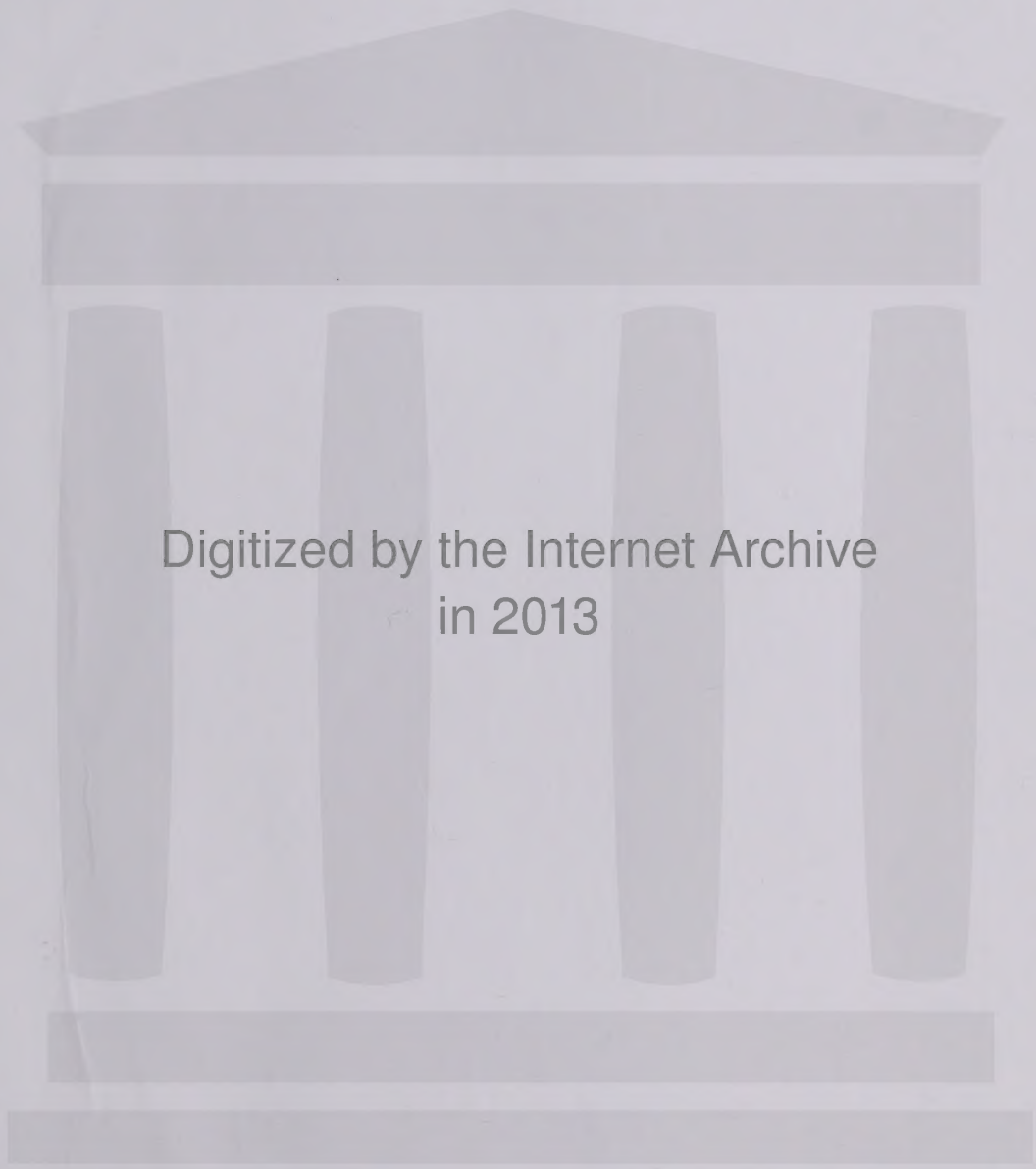

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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 1 August 15, 1972

SPRINGS ART SHOW AT LEE GALLERY

The 13th annual Springs Traveling Art Show featuring paints and sculpture by North and South Carolina artists will be on exhibition in Rudolph Lee Gallery through Aug. 22.

The show contains 55 works selected from 702 entries in the Springs Art Contest, largest non-juried art show in the Southeast.

Three Clemson College of Architecture artists are represented in the show: Robert H. Hunter, professor of history and visual studies; Thomas McPeak, head of department of history and visual studies; and R. Michael Holden, curator of Lee Gallery.

The Springs contest and show developed from the unorthodox art interests of Col. Elliott W. Springs, the flamboyant genius who headed the Springs Mills textile organization from 1931 until his death in 1959.

The Lee Gallery is open Monday through Friday 9 a.m. - 4:30 p.m.; Saturday and Sunday, 2-5 p.m. Exhibitions are sponsored by the College of Architecture and the Clemson Architectural Foundation.

COMMUNICATIONS UNITS MERGE

Effective July 1, 1972, the Department of Agricultural Communications merged with the University Communications Center and the Department of Public Relations, both of which are under the Office of the Vice President for Development. Agricultural radio and television personnel joined the University Communications Center Staff; agricultural editors, writers and bulletin room personnel joined the Public Relations Office.

For the following services, please contact:

. Radio, television, photography and visual aids -- Communications Center, 85 P&AS Building.

. Public Service (Extension and Experiment Station) publicity and public relations -- Mr. L.C. Hamilton, 112 P&AS Building.

. Public Service (Extension and Experiment Station) publications -- Miss Doris Timmerman, 112 P&AS Building.

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COMMUNICATIONS UNITS MERGE Continued

. University publicity -- Mr. Ross Cornwell, Trustee House.

. University publications -- Mrs. Beulah Cheney, Trustee House.

CLEMSON AWARDS 460 DEGREES AT SUMMER COMMENCEMENT

Clemson University awarded 460 degrees, including advanced degrees, at summer commencement August 5.

President Robert C. Edwards conferred 237 bachelor degrees, four associate in arts degrees, 201 master degrees and 18 doctorates. Including graduation ceremonies last December and May, the university awarded 1,679 degrees during academic year 1971-72. Second lieutenant commissions were conferred on 15 ROTC cadets.

Two graduates, Sarah R. Barnhill of Clemson and Linda A.J. Bowie of Greenville, finished with "highest honor" (grade-point ratio of 3.80 to 4.00).

Rachel A. Burns of Taylors was graduated with "high honor" (3.50 to 3.79).

Seventeen other students were graduated with "honor" (3.00 to 3.49).

A.F. ROTC CHANGES COMMAND -- President Robert C. Edwards, left, talks with Col. E.N. Tyndall, retiring commander of Air Force ROTC, and Col. Duncan W. Rabey Jr., new commander.

HOOK WILL LEAD ENGLISH CONFERENCE

Dr. J.N. Hook, professor emeritus of English at the University of Illinois and a distinguished authority in the field of English education, will lead a workshop on the teaching of the English language Aug. 21-24.

Hook will be the first to come to Clemson under the sponsorship of the Clemson Alumni Association's Visiting Professorship Program.

He is the author of more than 100 articles and 25 books, including the widely used "Teaching of High School English."

The informal four-day conference will stress new linguistic approaches to English grammar. It will focus on transformational grammar, its application to composition, modern attitudes toward English usage, and the importance of dialect study and historical perspective in understanding modern English.

About 70 public school English teachers will participate along with members of the Clemson English faculty.

INTRAMURAL SPORTS ANNOUNCES TENNIS REGULATIONS

Intramural Sports Director Banks McFadden has announced new Tennis Court Regulations that include a reservation system for use by students, faculty and staff.

"Our primary concern in developing these rules was to help the people who use the courts. We hope the reservation system will solve a problem for many. We'll surely appreciate everyone's support of the regulations."

Coach McFadden stressed the importance of the rule dealing with proper shoes. Only smooth sole tennis shoes are permitted on the courts; others will cause damage.

The new regulations will be in effect August 20.

CLEMSON HOSTS SEMINARS

Clemson was host to two seminars the week of August 7. Approximately 1,200 vocational instructors from across the state were on campus August 7-10 for their annual conference. Dr. Cyril B. Busbee, State Superintendent of Education, addressed the opening session.

A one-day marketing seminar was held August 9 for textile personnel not primarily engaged in marketing activities, but who need a basic understanding of marketing principles and concepts. The seminar was sponsored by the College of Industrial Management and Textile Science.

FACULTY PROMOTIONS ANNOUNCED FOR 1972-73

--Fifty-three members of the teaching and research faculties were promoted in rank for the year 1972-73. Of these, twenty associate professors became professors; twenty-four assistant professors became associate professors, and nine instructors became assistant professors.

COLLEGE OF AGRICULTURAL SCIENCES:

Promoted to Assistant Professor:

Barbara J. Griffin

Promoted to Associate Professor:

John A. Durant
Dale L. Handlin
Wright S. Jordan
James D. Maxwell
Edward L. McLean

Promoted to Professor:

Robert F. Borgman
Billy J. Gossett
Sidney B. Hays
Jerry R. Lambert
Ernest T. Sims, Jr.
George C. Skelley, Jr.
Byron K. Webb

COLLEGE OF ARCHITECTURE:

Promoted to Associate Professor:

James E. Dalton
James R. Washburn

COLLEGE OF EDUCATION:

Promoted to Associate Professor:

Robert T. Benson
Byron V. Burkette, Jr.
Jackie R. Harris

Promoted to Professor:

Arthur K. Jensen
Donald E. Maurer

FACULTY PROMOTIONS ANNOUNCED FOR 1972-73 (Continued)

COLLEGE OF ENGINEERING:

Promoted to Associate Professor:

Billy L. Edge
Thomas M. Keinath

Promoted to Professor:

Samuel F. Hulbert
Joseph P. Rostron
Arnold E. Schwartz
Maurice L. Wolla

COLLEGE OF FOREST AND RECREATION RESOURCES:

Promoted to Assistant Professor:

Larry D. Reamer

Promoted to Associate Professor:

Revis M. Frye
Lawrence W. Gahan
Thomas E. Wooten

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE:

Promoted to Associate Professor:

Russell D. Shannon

Promoted to Professor:

Evans A. LaRoche

COLLEGE OF LIBERAL ARTS:

Promoted to Assistant Professor:

Deuel N. Griffin
John Y. LeBourgeois
James E. Sargent
Donald H. Smith

FACULTY PROMOTIONS ANNOUNCED FOR 1972-73 (Continued)

COLLEGE OF LIBERAL ARTS: (Cont'd)

Promoted to Associate Professor:

William C. Capel, Jr.

COLLEGE OF NURSING:

Promoted to Assistant Professor:

Opal S. Hipps

COLLEGE OF PHYSICAL, MATHEMATICAL, AND BIOLOGICAL SCIENCES:

Promoted to Associate Professor:

Adolph L. Beyerlein
W. Robert Boland
O. John Jacobus
John K. Luedeman
C. Bradley Russell
David S. Snipes
Carlton W. Ulbrich

Promoted to Professor:

Joel V. Brawley, Jr.
Robert L. Chaplin
William E. Gettys
Jessup M. Shively
Clyde J. Umphlett
Kenneth T. Wallenius

CLEMSON UNIVERSITY AT GREENVILLE TEC:

Promoted to Assistant Professor

Alan S. Day

CLEMSON UNIVERSITY AT SUMTER:

Promoted to Assistant Professor:

John F. Logue

NEW FACULTY AND STAFF 1972-73

The following members of the faculty and staff joined the University between August 15, 1971 and August 15, 1972.

College of Agricultural Sciences

Arnett, James D., Jr., Assistant Professor, Plant Pathology and Physiology; B.S., M.S., University of South Carolina; Ph.D., Clemson University; Married, three children; Pee Dee Experiment Station, Box 271, Florence 29501

Bell, Kenneth R., Assistant Coordinator, Staff Development and Reporting Systems, Extension Service; B.S., Clemson University; Married, four children; P.O. Box 1260

Bietenholz, Andreas, Instructor, Agricultural Economics and Rural Sociology; B.S., University of Georgia; Married; Box 276, Lavonia, Georgia 30553

Hughes, Buddy L., Assistant Professor, Poultry Science; B.S., Clemson University; M.S., Ph.D., Oregon State University; Married, two children; 168 Pendleton Road

Jobes, Raleigh A., Assistant Professor, Agricultural Economics and Rural Sociology; B.S., Oklahoma State University; M.S., University of Arizona; Ph.D., Oklahoma State University; Married, one child; Village Green Apartments

Jones, Donald B., Statistician (Crop Reporting Service - Columbia), Agricultural Economics and Rural Sociology; B.S., University of Missouri; Married, three children; 112 Loch Road, Columbia 29210

Jones, Thomas L., Assistant Professor, Horticulture; B.S., M.Ext.Ed., Ph.D., University of Illinois; Married, five children; Sandhill Experiment Station, Box 1771, Columbia 29202

Langley, Leon H., Instructor, Agricultural Economics and Rural Sociology; B.S., Clemson University; M.S., University of Georgia; Married, 630 Dowling Avenue, Walterboro 29488

Loyd, Max I., Associate Professor, Agricultural Economics and Rural Sociology; B.S., M.S., Ph.D., North Carolina State University; Married, two children; 108 Clarendon Drive

McLemore, Dan L., Assistant Professor, Agricultural Economics and Rural Sociology; B.A., Presbyterian College; M.S., Ph.D., Clemson University; Married, one child; Route 2, Box 253, Seneca 29678

Pittman, Ruby Gayle, Assistant Professor, Entomology and Economic Zoology; B.S., Oklahoma Panhandle State College; Ph.D., Rice University; Single; Royal Oaks Apartments, Oak Street

Price, David G., Associate Professor, Animal Pathology (joint appointment - Animal Science and Dairy Science); B.S., M.S., D.V.M., University of Georgia; Married, three children

Robbins, Marion L., Assistant Professor, Horticulture; B.S., Clemson University; M.S., Louisiana State University; Ph.D., University of Maryland; Married, three children; Truck Experiment Station, Box 3158, St. Andrews Branch, Charleston 29407

NEW FACULTY AND STAFF 1972-73 (Continued)

Robinson, Bobby H., Associate Professor, Agricultural Economics and Rural Sociology; B.S., Berea College; M.S., North Carolina State University; Ph.D., Clemson University; Married, two children

Rogers, Melvin D., Agricultural Statistician (Crop Reporting Service - Columbia), Agricultural Economics and Rural Sociology; B.S., Clemson University; Married, two children; 919 Lockner Road, Columbia 29210

Shepard, Buford M., Assistant Professor, Entomology and Economic Zoology; B.S., Middle Tennessee State University; M.S., University of Georgia; Ph.D., Texas A&M University; Married

Spiers, Judith E., Instructor, Home Economics; B.S., Winthrop College; M.S., University of Tennessee; Single; 9-D Daniel Drive

Spray, Richard A., Assistant Professor, Agricultural Engineering; B.S., M.S., West Virginia University; Ph.D., University of Missouri; Married

Williford, Cynthia W., Assistant to State Leader, Extension Home Economics Programs and Assistant Professor, Home Economics; B.S., South Carolina State College; M.S., Michigan State University; Married; 222 Hillcrest Circle, Anderson 29621

College of Architecture

Chartier, Robert L., Instructor of Architecture; B.Arch., North Carolina State University; M.Arch., Clemson University; Married, two children; 219 Brook Street

Collins, Donald L., Assistant Professor of Architecture; B.L.A., North Carolina State University; M.L.A., Harvard University; Married, one child; 112 Allee Street

Doruk, Teoman K., Visiting Professor of Architecture; Dipl. Arch., Ph.D., Technical University of Istanbul; Married, one child

Eflin, Robert D., Associate Professor of Architecture and University Campus Planner; B.Arch., Minnesota University; M.Arch., Rice University; Married, three children; 216 Wren Street

Egan, Martin D., Associate Professor of Architecture; B.S., Lafayette College; M.S., Massachusetts Institute of Technology; Married

Gantt, Harvey, Assistant Professor of Architecture; B.Arch., Clemson University; M.Arch., Massachusetts Institute of Technology; Married, two children

Hutchinson, David W., Dipl. Arch., Brighton College of Art; Dipl. Town Planning, University College of London; Married, two children

NEW FACULTY AND STAFF 1972-73 (Continued)

College of Education

Blanton, Lloyd H., Assistant Professor of Agricultural Education; B.S., M.Ag.Ed., Clemson University; Ph.D., The Ohio State University; Married, two children; Keoway Apts.

Brooks, Afton D., Assistant Professor of Education; A.B., Carson-Newman College; M.Ed., Middle Tennessee State University; Ed.D., University of Georgia; Married, three children

Cash, Lee W., Assistant Professor of Aerospace Studies; B.S., North Carolina State College; M.S., University of Southern California; Married, two children; 200 Wren St.

Corder, William O., Associate Professor of Education; A.B., University of South Carolina; M.S., Clemson University; Ed.S., Peabody College; Ed.D., University of Virginia; Married, three children; Cardinal Drive

Ellis, Orous L., Jr., Assistant Professor of Military Science; B.S., University of Southern Mississippi; Married, four children; 110 Brookwood Lane

House, Randolph W., Assistant Professor of Military Science; B.S., Texas A&M University; Married, one child; 115 Allee Street

Linhardt, Richard E., Assistant Professor of Agricultural Education and Agricultural Engineering; B.S., M.Ed., Ph.D., University of Missouri; Married, three children; 108 Ridge View Drive

Lumpkin, Oliver R., Associate Professor of Education; B.S., The Fort Valley State College; M.Ed., Tuskegee Institute; Ph.D., The Ohio State University; Married, two children

Maertens, Thomas B., Professor of Military Science; B.S., West Point Military Academy; M.S., University of Alabama; Married, two children; 104 Lakeside Court

Mercer, Robert J., Associate Professor of Vocational Education; B.S., M.Ed., The North Carolina State University; Ed.D., The Pennsylvania State University; Married, three children; 14A Pendleton Road

Oliver, Edward L., Assistant Professor of Military Science; B.A., The Citadel; Married, two children; Route 2, Indian Hills, Seneca

Peden, Ralph K., Assistant Professor of Education; B.S., Presbyterian College; M.A., Middle Tennessee State University; Ed.D., University of Mississippi; Married, two children

Rabey, Duncan W., Jr., Professor of Aerospace Studies; B.S., Clemson University; Married, three children; 123 Tamassee Drive

Simpson, Claude S., Jr., Assistant Professor of Military Science; B.S., M.Ed., Clemson University; Married, two children; 3 Northhampton Road, Normandy Shores, Seneca

Williams, Donald G., Assistant Professor of Military Science; B.A., Gettysburg College; Married, two children; 2 Northhampton Road, Normandy Shores, Seneca

NEW FACULTY AND STAFF 1972-73 (Continued)

College of Engineering

Anand, Subhash C., Associate Professor of Civil Engineering; B.S., Banaras Hindu University; M.S., Ph.D., Northwestern University; Married, two children

Cott, Donald W., Assistant Professor of Mechanical Engineering; B.S., M.S., Oklahoma State University; Ph.D., University of Tennessee; Married, three children; Fife Drive

Duke, Albert L., Professor and Head of the Department of Electrical and Computer Engineering; B.S., Tennessee Polytechnic Institute; M.S., Virginia Polytechnic Institute; Ph.D., Michigan State University; Married, three children, Allee Street

Gaddis, Joseph L., Associate Professor of Mechanical Engineering; B.S., M.S., New Mexico State University; Ph.D., The University of Texas; Married, two children

Iracki, Edwin S., Assistant Professor of Environmental Systems Engineering; B.S., King's College; M.S., Ph.D., University of Illinois; Married, two children

Kane, Thomas L., Assistant Professor of Electrical and Computer Engineering; B.S., M.E.E., University of Florida; Ph.D., Clemson University; Married, two children

Leonard, Ralph L., Visiting Assistant Professor of Biomedical Engineering; B.S., Michigan State University; M.S., Ph.D., University of California; Married

Spector, Myron, Assistant Professor of Civil Engineering and Bioengineering; B.S., M.S., Ph.D., Carnegie-Mellon University; Married, one child; 106 College Heights Blvd

Weinstein, Allan M., Assistant Professor of Materials Engineering and Bioengineering; B.S., M.S., Ph.D., Polytechnic Institute of Brooklyn; Married, one child; Shorecrest Apartments

College of Forest and Recreation Resources

Grove, H. Jesse, Assistant Professor, Department of Recreation and Park Administration; B.S., M.Ed., Pennsylvania State University; Married; 210 Hunter Avenue

Hamel, Paul B., Instructor, Department of Recreation and Park Administration; B.S., M.S., Michigan State University; Married

Kessler, George D., Assistant Professor, Department of Forestry; B.S., M.S., Ph.D., University of Georgia; Married; Route 2, Box 294, Central

McLellan, Robert W., Associate Professor, Department of Recreation and Park Administration; B.A., University of Saskatchewan; M.S., Florida State University; Ph.D., University of Minnesota; Married

Van Lear, David H., Associate Professor, Department of Forestry; B.S., M.S., Virginia Polytechnic Institute; Ph.D., University of Idaho; Single; 8-B Daniel Drive

NEW FACULTY AND STAFF 1972-73 (Continued)

College of Industrial Management and Textile Science

Byrns, Ralph T. II, Assistant Professor in Economics; B.S., Arizona State University; M.S., Rice University; Married

Davison, Dale L., Assistant Professor in Industrial Management; B.S., Northeast Louisiana University; MBA, University of Georgia; Married

Elliott, Ralph D., Assistant Professor in Economics & Director of Professional Development Program; B.S., M.S., Ph.D., North Carolina State University; Married one child

Grayson, William L., Instructor in Economics; B.S., Louisiana Tech University; Married, one child

Himsworth, Francis R., Professor in Industrial Management; B.S., Ph.D., Edinburgh University; Married, two children

Moreno, Hermogenes, Instructor in Economics; B.S. Tulane University; M.S. Clemson University; Married; 102 Pressley Street

Mulkey, William D., Instructor in Economics; B.S., Auburn University; M.A. Clemson University; Married; 131-C Freedom Drive

Patrick, Thomas M., Jr., Visiting Lecturer in Industrial Management; A.B., Davidson College; LLB, University of Virginia; Married; 14 Woodvale Avenue, Greenville

Pierce, Happy, Instructor in Accounting; BBA, Arkansas A&M College; MBA, University of Mississippi; Married

Pierce, Shirley, Instructor in Accounting; BBA, Southern State College; MBA, University of Mississippi; Married

Stearns, Edwin I., Department Head and Professor in Textiles; B.S., Lafayette College; M.S., Rensselaer Polytechnic Institute; Ph.D., Rutgers University; Married, three children; 321 Woodland Way

Whitman, Alan R., Instructor in Industrial Management; B.S., University of Tennessee; Single; Clemson House

College of Liberal Arts

Berger, Leonard, Assistant Professor of Psychology; B.A., M.A., Ph.D., Temple University; Married; #18 Shorecrest Apartments

Dunn, Charles W., Head of Department of Political Science and Sociology and Associate Professor of Political Science; B.S., Illinois State University; M.S., Ph.D., Florida State University; Married, one child

NEW FACULTY AND STAFF 1972-73 (Continued)

Fannin, Leon F., Professor of Sociology; B.A., M.A., Ph.D., University of Wisconsin; Married, four children; 1801 Millgate Avenue, Anderson

Ficker, Mrs. Sue G., Instructor in Sociology; B.A., University of South Carolina; M.A., University of North Carolina; Married; #12 Shorecrest Apartments

Harder, Mrs. Lillian U., Acting Instructor in Music; B.A., Coker College; M.M., Converse College; Married, one child; 301 Wyatt Avenue

Hugo, Miss Monique, Visiting Instructor in French; Agregation, Montpellier University; License es Lettres, University of Metz; Single; 2-D Palmetto Blvd

Koon, George W., Instructor in English; B.A., Newberry College; M.A., Auburn University; Married, 2 children; H-8 Keowee Apartments, Route 2, Seneca

Mandel, Jerome H., Associate Professor of English; B.A., Oberlin College; M.A., Ph.D., Ohio State University; Married, two children; 224 N. Clemson Avenue

Melton, Miss Judith M., Assistant Professor of German; B.A., M.A., Ph.D., Louisiana State University; Single; #7 Shorecrest Apartments

Park, Mrs. Lauretta I., Assistant Professor of Psychology; B.A., Muskingum College; M.S., Ph.D., Florida State University; Married, five children

Pearce, Frank W., Jr., Instructor in English; B.A., M.A., Clemson University; Married

Poteat, Mrs. Barbara W. S., Instructor in Psychology; B.A., Duke University; M.A., University of South Carolina; Married, three children; 10 Seminole Drive, Greenville

Recktenwald, Robert P., Assistant Professor of English; B.A. University of Florida; M.A., University of North Carolina; Ph.D., Brown University; Married, two children; 24 Northway, Lewis Street, Pickens

Wadsworth, Phillip J., Instructor in Sociology; B.S., Florence State University; M.A., Memphis State University; Married; C-7 Tanglewood Apt., March Banks Ave., Anderson

Willingham, Russell, Instructor in French; B.A., Clark College; M.A., Atlanta University; Single

College of Nursing

Bernhardt, Jeanette, Mrs., Instructor; B.S.N., M.S.N., University of Alabama

Miller, Anne, Mrs., Instructor; B.S.N., Alverno College; M.N., Emory University

Mullen, Anne M., Instructor; B.S.N., Duquesne University; M.N., Emory University

NEW FACULTY AND STAFF 1972-73 (Continued)

College of Physical, Mathematical and Biological Sciences

Ahlers, Carl W., Assistant Professor of Mathematical Sciences; B.S., M.A., University of Texas; Ph.D., Texas Technological University; Single

Buckheister, Philip G., Instructor in Mathematical Sciences; B.S., Clemson University; Married, one child; 177 Woodridge

Constantine, Randolph, Assistant Professor of Mathematical Sciences; B.S., M.A., University of North Carolina at Chapel Hill; Ph.D., University of Houston; Married, one child

Fennemore, Charles F., Assistant Professor of Mathematical Sciences; A.B., University of Rochester; Ph.D., Pennsylvania State University; Married, two children

Ford, William H., Assistant Professor of Mathematical Sciences; B.S., Massachusetts Institute of Technology; M.S., Ph.D., University of Illinois; Married

Larcom, Lyndon L., Assistant Professor of Microbiology and Physics; B.S., Carnegie-Mellon University; M.S., Ph.D., University of Pittsburgh; Single; Clemson House

McInnis, Thomas M., Assistant Professor of Botany; B.S., Ph.D., University of North Carolina; Single; Village Green Apartments

Min, Hong S., Head of Zoology Department and Professor of Zoology; B.A., M.S., West Virginia University; Ph.D., University of Georgia; Married, three children; 100 Kelly Road

Roedersheimer, Richard J., Assistant Professor of Physics; A.B., Thomas More College; M.S., University of Dayton; Ph.D., Clemson University; Single

Clemson University at Greenville

Evans, Richard B., Instructor in Mathematics; A.B. Catawba College; M.S., Clemson University; Married, one child; 233 F Street

Larson, Gail M., Instructor in Economics; B.A., Antioch College; Single

Trapnell, Jerry, Instructor in Industrial Management (Accounting), B.S., M.S., Clemson University; Single; Apt X III, Pelham East, 100 Pelham Road, Greenville

Clemson University at Sumter

Sharp, Emily R., Instructor in English; B.A., Anderson College (Indiana); M.A., Western Kentucky University; Single; 111 East Charlotte Avenue, Sumter

NEW FACULTY AND STAFF 1972-73 (Continued)

Office of Business and Finance

Boleman, Jimmy, Buyer II, Purchasing; B.S., Erskine College; Married

Gardner, Terry, Buyer II,Purchasing; B.A., Clemson University; Married.

Geer, William, Accountant III, Business and Finance; B.S., Clemson University; Married

Hanna, James, Plant Engineer, Physical Plant; B.S., Clemson University; Married

Talantis, John, Director of Dining Services; Attended University of Alabama; Married

Young, Jack, Associate Director of Housing; B.S., Clemson University; Married

Freeman, Raleigh, Recruitment and Insurance Assistant, Personnel; Attended Tuskegee Institute; Married

Computer Center

Houston, Charles I., Jr., Senior Software Analyst and Instructor in Mathematical Sciences; B.S., M.S., Clemson University; Married; 10-C Daniel Drive

Schouest, Russell, Manager of Systems and Instructor in Mathematical Sciences; B.S., M.S., University of Southwestern Louisiana; Married, one child; 4-D North Palmetto Blvd

Office for Development

Cheney, Beulah R., Publications Editor, A.B., University of Georgia; Married, 205 Thomas Street

Dean, Louie E., Sr., Photographer, University Communications Center; Married; P.O. Box 548, Clarkesville, Georgia

Ducker, Vincent, Photographer, University Communications Center; Married; 13 Cascade Court, Greenville

Hall, Lily-Roland, Production Assistant, University Communications Center; Married; Marchbanks Avenue , Anderson

Martin, James, Jr., Photographer, University Communications Center; Married; Route 4, Seneca

McPhail, Ann Lee, Assistant Radio and TV Editor, University Communications Center; Married; Route 3, Seneca

Shehee, Stewart L., Director of Deferred Gifts, B.S., Louisiana State University; J.D., University of South Carolina; Married; 103-B Dove Circle

Weaver, Martha Helen, Illustrator, University Communications Center; Married; Route 1, Pendleton

NEW FACULTY AND STAFF 1972-73 (Continued)

Office of Student Affairs

Beckish, Lawrence M., Head J.V. Football Coach, Athletics; B.A., Wichita State University; Married

Felsburg, Joel L., Residence Manager, Residence Halls Office; B.S., Mansfield State College, M.Ed., University of Georgia; Married

Harder, Byron B., Physician, Student Health Service; B.S., Clemson University; M.D., Medical University of South Carolina; Married

Law, Linda B., Admissions Counselor, Office of Admissions and Registration; B.A., University of Hartford; Married

McCleskey, Sandrea Finley, Head Resident, Student Affairs; B.S., Clemson University; Married

Mauldin, Frank, Counselor, Residence Halls Office; B.A., Morris College; Married

Mayfield, Walter A., Jr., Admissions Counselor, Office of Admissions and Registration; B.A., Presbyterian College; M.Ed., Clemson University; Married

Raynal, Melissa Turner, Head Resident, Student Affairs; B.A., Columbus College; Married .

UNIVERSITY LIBRARY COMMITTEE "RESERVE BOOK POLICY"

On June 1, the "Subcommittee on Reserve Book Policy," composed of R. J. Calhoun and Donald B. Stafford, met with members of the library staff to devise more efficient procedures for handling reserve books. The report of the Subcommittee which was distributed to and approved by members of the University Library Committee is given below:

1. The present reserve book policy will be revised to eliminate one-week reserves. In the future books will be placed on reserve for "Library Use Only," "Overnight," "Two-Day," and "Four-Day."

2. Faculty members are requested not to place books on reserve unless they are essential to their classes. It is also requested that they examine circulation records and eliminate books infrequently used.

3. Faculty members are urged to be more careful in choosing types of reserves when the books are requested so that changes need not be made during the semester.

4. Faculty members are urged to turn in their reserve lists at least two weeks before the beginning of the semester for books to be put on that semester. It would be to the advantage of faculty and students for the reserve lists to be submitted even earlier than two weeks.

5. Faculty members are encouraged to check library holdings before making up reading lists.

6. In order to facilitate the processing of reserve books, the library will process lists in the following order:

First	Books brought in with lists.
Second	Lists with call numbers.
Third	Lists with no call numbers.

7. Faculty members should submit reserve lists for additional books at least a week to 10 days before books are actually needed.

8. Because of interpretation of copyright law, the library will only make one Xerox copy of an article. If more than one copy of the article is needed, copies must be provided by the faculty member and given to the library staff. These will be treated as his personal copies and will be returned to him at the end of the semester.

9. Faculty members must notify the library staff on the form supplied if reserve books are needed for the following semester. Otherwise books will be removed from reserve at the end of each semester. If the books are to be retained, faculty members are urged to review circulation records.

10. Other than at the end of the semester, written notification from faculty members must be received before books will be removed from reserve.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

J. C. Hite (Assoc Prof) has been elected Secretary-Treasurer of the Southern Regional Science Association. The Association's membership includes regional economists, geographers and planners in 11 Southern states.

J. C. Hite and E. A. Laurent (Ga Tech) are co-authors of a recently published book entitled, Environmental Planning: An Economic Analysis. The book is published by Praeger Publishers, New York City.

ANIMAL SCIENCE

The following papers were presented at the annual meeting of the American Society of Animal Science, Blacksburg, Va., July 28-Aug. 2:

"Effects of Dietary Sulfur on Steer Performance," presented by R. L. Edwards (Assoc Prof), G. C. Skelley (Assoc Prof), P. A. Bellew and W. E. Billon.

"Progesterone and Estrogen Profiles in Multiple Ovulated Heifers," presented by J. R. Hill (Prof), D. M. Henricks (Assoc Prof), J. F. Dickey (Assoc Prof), and D. R. Lamond.

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

The College of Industrial Management and Textile Science has announced that Edward A. Vaughn (Asst Prof) and Edward L. Powers (Asst Prof) will serve as co-editors of the Clemson University Textile Marketing Letter, effective with the Sept. issue. The Textile Marketing Letter is published ten months a year under the auspices of the College of Industrial Management and Textile Science as a service to the textile business and academic communities.

FOOD SCIENCE

J. H. Mitchell, Jr. (Prof) presented a paper entitled, "Utilization of Peanut Flakes in Food Products," at the annual meeting of the American Peanut Research and Education Association in Albany, Ga. on July 18.

D. M. Henricks (Assoc Prof) presented a paper, co-authored with H. D. Guthrie (Grad Stu) and D. L. Handlin (Asst Prof, Animal Science), entitled, "The Effect of Pregnant Mare Serum on Estrogen, Progesterone and Leteinizing Hormone Levels in Pigs Prior to and After Mating," at the Society for Study of Reproduction Annual Meeting in East Lansing, Mich., June 22-24.

INDUSTRIAL EDUCATION

A. F. Newton (Prof and Hd) was moderator for the panel "The Role of the Vocational Teacher in Assisting the Superintendent, Director or Principal and Guidance Counselor in a Quality Vocational Program," at a session of the Trade and Industrial Section of the annual Vocational Teachers' Conference held Aug. 7-10 at Clemson University.

Dr. Newton also served on the panel "Meaningful and Useful Audio-Visual Aids for Trade and Industrial Education Teachers" at the afternoon session on Aug. 9. Dr. Newton was presiding officer at the Second General Session on Aug. 10.

F. A. Bosdell (Asst Prof) served as moderator on the panel "Overview of Curriculum Development in Diversified Occupations and Cooperative Education Programs" at the Aug. 8 afternoon session of the Trade and Industrial Education Section of the annual Vocational Teachers' Conference, Aug. 7-10 on the Clemson campus. Professor Bosdell also served on the panel, "Meaningful and Useful Audio-Visual Aids for Trade and Industrial Education Teachers" at the afternoon session, Aug. 9.

COLLEGE OF ENGINEERING

S. F. Hulbert (Assoc Dean) presented a seminar entitled, "Direct Skeletal Attachment of Prostheses" at the Baylor College of Medicine, Houston, Tex. on Aug. 3.

Lyle C. Wilcox (Assoc Dean) and J. Bryant (Grad Stu) will present a paper entitled "Real-Time Simulation of Activated Waste Sludge Treatment," at the 1972 Joint Automatic Control Conference, to be held at Stanford University, Stanford, Calif., Aug. 16-18.

ELECTRICAL AND COMPUTER ENGINEERING

B. E. Gilliland (Assoc Prof) and J. F. Dickey (Assoc Prof, Dairy Sci) are invited participants at a workshop on oviduct monitoring instrumentation to be held at Battelle Laboratories, Northwest, Seattle, Wash., Aug. 24-25. The workshop is sponsored by the National Institutes of Health's Center for Population Research.

POULTRY SCIENCE

James B. Cooper (Assoc Prof), President of the local chapter of Gamma Sigma Delta attended the International Bi-annual Conclave at Athens, Ga. on July 9-11. He presented a report of the activities of the Clemson chapter.

William T. Derieux (Poultry Pathologist) Poultry Science Dept. and Livestock Poultry Health Laboratory, attended the 109th annual American Veterinary Medical Association meeting in New Orleans, La., July 18-20 and presented a paper entitled, "Encephalitis in Turkey Poults due to Dactylaria gallopava: A Case Report and Experimental Reproduction of the Disease," authored by H. Gaffney Blalock, Livestock-Poultry Health Laboratory; Lucille K. Georg, center for Disease Control, and William T. Derieux.

POLITICAL SCIENCE AND SOCIOLOGY

E. M. Coulter (Asst Prof) participated in the second annual National Security Seminar at Colorado College. The conference is sponsored by New York University, the National Strategy Information Center and Colorado College, and met for four weeks, June 16 - July 14. Dr. Coulter served as chairman of the committee on Asian Security Problems and presented a paper, "Recent Indian Security Policies."

RECREATION AND PARK ADMINISTRATION

Herbert Brantley (Prof and Hd) has been appointed to the Recreation Sub-Committee of the President's Committee on Employment of the Handicapped.

TEXTILE DEPARTMENT

The U.S. Army Natick Laboratories, Natick, Mass. has honored E. I. Stearns (Prof and Hd) with an appropriate scroll in appreciation of his scientific contributions to the Laboratories in the field of color science, reflectance, camouflage, dyeing and finishing.

Frederick T. Simon, (Sirrine Prof) published two papers recently, "Color Formulation and Control in the Vinyl Fabric Industry" which appeared in the American Chemical Society's Advances in Chemistry Series 107 and the "Two-Mode Method for Measurement and Formulation with Fluorescent Colorants," Journal of Color and Appearance, Vol. I, No. 4, 1972.

D. W. Lyons (Assoc Prof) and Edward Olson (Assoc Prof) published a paper entitled, "Effect of Drying and Heat-Setting Temperatures on the Removal Characteristics of Polyvinyl Alcohol Size" in the Textile Research Journal.

TEXTILE DEPARTMENT (Continued)

D. W. Lyons and John D. Hatcher were co-chairmen and presented papers in the short course, "The Engineering Control of Cotton Dust," which was held July 26. Over 130 managers and health specialists from the textile industry and government units attended this course.

ZOOLOGY DEPARTMENT

Edmund D. Brodie, Jr. (Asst Prof) presented an invited paper on "Defensive mechanisms of plethodontid salamanders" at the conference on the Biology of Plethodontid Salamanders sponsored by the Highlands Biological Station, Highlands, N.C. Dr. Brodie also moderated a paper session.

William Bachop (Asst Prof) was awarded a $595 tuition-support stipend by the NIH to attend the Molecular Cytogenetics course at Cold Spring Harbor Laboratory, Long Island, N.Y., Aug. 2-22.

William K. Willard (Assoc Prof) presented a course in Ecosystem Analysis, June 8 through July 11 at Tech Aqua Biological Station, Center Hill Reservoir, near Smithville, Tenn. While on station Dr. Willard also presented a seminar on the Dynamics of Animal Populations.

DATES ANNOUNCED FOR NATIONAL AND RESTRICTED TESTS

Dr. John F. Mulkeen (Dir Counseling Center) announces the 1972-73 schedule of dates for national and restricted tests to be administered by the Counseling Center. He advises students to apply at least five weeks prior to the scheduled test date. Applications for all tests are available at the Counseling Center, Room 20, Tillman Hall.

Admission Test for Graduate Study in Business: Nov. 4, 1972; Feb. 3, 1973.
Architectural School Aptitude Test: Dec. 16, 1972; Feb. 10, 1973.
Dental Aptitude Test: Oct. 6, 1972; Jan. 5, 1973; April 27, 1973.
Graduate Record Examination: Oct. 28, 1972; Dec. 9, 1972; Jan. 20, 1973; April 28, 1973; June 16, 1973.
Graduate School Foreign Language Test: Oct. 14, 1972; Feb. 3, 1973; April 14, 1973; July 28, 1973.
Medical College Admission Test: Oct. 7, 1972; May, 1973 (day to be announced).

The following special tests are given by appointment and for a fee: Miller Analogies Test; Minnesota Engineering Analogies Test; Doppelt Mathematical Reasoning Test; American Institute of Certified Public Accountants, Aptitude and Achievement Test; and specific tests for students transferring to other colleges and universities.

CALENDAR OF CAMPUS EVENTS

Aug.	15	Tues.		Welcome back party for football team.
Aug.	16	Wed.		Football practice begins.
Aug.	18	Fri.	8:00 a.m.	Faculty and staff orientation - P&AS Auditorium.
Aug.	19	Sat.		Individual college orientation.
Aug. - Aug.	21 - 24	Mon. - Thurs.		English dept. seminar, "The Teaching of English."
Aug.	21	Mon.	10:30 a.m.	General faculty and staff meeting - Tillman Hall Auditorium.
Aug.	21	Mon.		New student orientation.
Aug.	23	Wed.		Registration, all students.
Aug. - Sept.	25 - 4	Fri. - Mon.		Architectural exhibit - A. Wolfe Davidson - Lee Hall Gallery.
Aug.	25	Fri.		Classes begin, regular schedule.
Aug.	28	Mon.	5:00 p.m.	Placement orientation, seniors and graduate students - room 1, Brackett Hall.
Aug.	30	Wed.		Freshmen party at Baptist Student Union.
Aug.	31	Thurs.	8:00 - 9:30 p.m.	President and Mrs. Edwards - "At Home" to the Faculty and Staff.
Sept.	6	Wed.	9:05 - 11:15 a.m.	Agronomy - Dr. I. M. Wofford of the Kaiser Corp., Savannah, Ga. - "Production, Marketing, and Use of Nitrogen Fertilizer" - A-203 P&AS.
Sept.	6	Wed.	6:30 p.m.	Fort Hill Clemson Club "Shrimp & Sip" - Wilson's Landing (postponed to Sept. 8th if rain).
Sept.	7	Thurs.	8:00 p.m.	Graduate Wives meeting - YMCA.
Sept. - Sept.	8 - 10	Fri. - Sun.		Baptist Sutdent Union planning retreat - Camp Greenville.

CALENDAR OF CAMPUS EVENTS Continued

Sept. 9	Sat.	1:30 p.m.	Varsity Football - Citadel at Clemson (IPTAY Day).
Sept. 9	Sat.		Central Dance Association Concert - Littlejohn Coliseum.
Sept. 12	Tues.	2:00 p.m.	CU Speakers Bureau - Douglas Kiker and Paul Duke of NBC - Tillman Hall Auditorium.
Sept. 13	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Sept. 14	Thurs.	4:00 and 8:00 p.m.	Howards of Virginia - History Film Series - Daniel Auditorium.
Sept. 14	Thurs.		Baptist Student Union parents-students adoption picnic.
Sept. 15	Fri.		Cotillion Club - Caberet Dance.
Sept. 16-Oct. 10	Sat. Tues.		Architecture exhibit - "The New Eye in Chinese Painting" - Lee Hall Gallery.
Sept. 17	Sun.	2:00 p.m.	Soccer - The Citadel at Clemson.
Sept. 20	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Sept. 21	Thurs.	7:30 p.m.	PROGRAM: "Bewitching Brazil" - P&AS Auditorium.
Sept. 23	Sat.	8:30 p.m.	Varsity Football - Rice at Houston.
Sept. 25	Mon.	2:00 p.m.	JV Football - Duke at Clemson.
Sept. 25	Mon.	1:00 p.m.	Soccer at Appalachian State.
Sept. 25	Mon.	8:00 p.m.	Itzhak Perlman, violinist - Littlejohn Coliseum.
Sept. 25	Mon.	9:05-11:15 a.m.	Dr. J. F. Reed of the Potash Institute of North America, Atlanta, Ga. - "Production, Marketing and Use of Potassium Fertilizers" - A-203 P&AS. (Agronomy)
Sept. 26	Tues.		Foreign Language Plays - Una Noche de Primavera Sin Sueno (Spanish).

CALENDAR OF CAMPUS EVENTS Continued

Sept.	27	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Sept.	27	Wed.	9:05-11:15 a.m.	Agronomy - Dr. G.G. Williams of the Tennessee Valley Authority, Muscle Shoals, Ala., "Production, Marketing and Use of Phosphate Fertilizer" - A-203 P&AS.
Sept.	29	Fri.	3:00 p.m.	Soccer at Rollins.
Sept.	30	Sat.	2:30 p.m.	Varsity Football at Oklahoma.
Sept.	30	Sat.		Central Dance Association Concert - Littlejohn Coliseum.
Oct.	1	Sun.	2:00 p.m.	Soccer at South Florida.
Oct.	4	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Oct.	4	Wed.	2:00 p.m.	CU Speakers Bureau - Pierre Salinger - Tillman Hall Auditorium.
Oct.	5-	Thurs.-		The third annual Clemson Reading
Oct.	7	Sat.		"Teaching Every Child to Read" conference.
Oct.	5	Thurs.	8:00 p.m.	Graduate Wives meeting - YMCA.
Oct.	6-	Fri.-		Soccer - Emory Invitational Tourna-
Oct.	7	Sat.		ment in Atlanta, Ga.
Oct.	7	Sat.	2:00 p.m.	Varsity Football at Georgia Tech.
Oct.	7	Sat.		Medical College Admission Test.
Oct.	7-	Sat.-		Women's Open Fencing Tournament -
Oct.	8	Sun.		Littlejohn Coliseum.
Oct.	9	Mon.	2:00 p.m.	JV Football at Georgia.
Oct.	10	Tues.	4:00 and 8:00 p.m.	Oedipus the King - History Film Series - Daniel Auditorium.
Oct.	11	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Oct.	13-	Fri.-		Architecture exhibit - "Figure in
Nov.	5	Sun.		Landscape" - Lee Hall Gallery.
Oct.	13-	Fri.-		Clemson University's National Ad-
Oct.	15	Sun.		visory Board for Biomaterials Research and Educational Programs (College of Engineering).

CALENDAR OF CAMPUS EVENTS Continued

Oct.	14	Sat.	1:30 p.m.	Varsity Football - Duke at Clemson.
Oct.	14	Sat.		Graduate School Foreign Language Test.
Oct.	15	Sun.	2:00 p.m.	Soccer - N. C. State at Clemson.
Oct.	16	Mon.	2:00 p.m.	JV Football - Citadel at Clemson.
Oct.	16	Mon.		Preliminary reports due.
Oct. 17- Oct. 18		Tues.- Wed.		Southeastern Vegetable Pest Workshop - Clemson.
Oct.	18	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Oct.	19	Thurs.		French - En Attendant Godot.
Oct.	19	Thurs.	7:30 p.m.	"Londontown" - P&AS Auditorium.
Oct.	20	Fri.	3:00 p.m.	Soccer - North Carolina at Clemson.
Oct.	20	Fri.		Clemson Foundation and Alumni National Council meeting - Clemson House.
Oct.	20	Fri.		Tigerama - Stadium.
Oct.	21	Sat.	1:30 p.m.	Varsity Football - Virginia at Clemson (Homecoming).
Oct.	21	Sat.		Central Dance Association Concert - Littlejohn Coliseum.
Oct.	23	Mon.	7:30 p.m.	JV Football at South Carolina.
Oct.	23	Mon.	3:00 p.m.	Soccer - Western Carolina at Clemson.
Oct.	23	Mon.	9:05- 11:15 a.m.	Agronomy - Dr. H. L. Balay of the Tennessee Valley Authority, Muscle Shoals, Ala. - "Production, Marketing, and Use of Solid, Solution and Suspension Multinutrient Fertilizers I" - A-203 P&AS.
Oct.	24	Tues.		German - Biedermann und die Brandtstifte.
Oct.	24	Tues.	8:00 p.m.	The Great Thaw - room 200, Hardin Hall.
Oct.	25	Wed.	3:00 p.m.	Soccer at Furman.

CALENDAR OF CAMPUS EVENTS Continued

Oct.	25	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Oct.	25	Wed.	9:05-11:15 a.m.	Agronomy - Dr. H. L. Balay of the Tennessee Valley Authority, Muscle Shoals, Ala. - "Production, Marketing, and Use of Solid, Solution and Suspension Multinutrient Fertilizers II" A-203 P&AS.
Oct.	28	Sat.	1:30 p.m.	Varsity Football at Wake Forest.
Oct.	28	Sat.		Graduate Record Examination.
Oct.	29	Sun.	2:00 p.m.	Soccer - Virginia at Clemson.
Oct.	29	Sun.	11:30 a.m.	Clemson "B" Soccer - South Carolina at Clemson.
Oct.	31	Tues.	2:00 p.m.	CU Speakers Bureau - Robert Reisner - Tillman Hall Auditorium.
Nov.	1	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Nov.	1	Wed.		Speech Night - Daniel Auditorium.
Nov.	2	Thurs.	8:00 p.m.	Graduate Wives meeting - YMCA.
Nov.	2	Thurs.	4:00 and 8:00 p.m.	Guns of August - History Film Series - Daniel Auditorium.
Nov. 3-Nov. 5		Fri.-Sun.		Baptist Student Union fall convention - Greenwood.
Nov.	3	Fri.	3:00 p.m.	Soccer at Duke.
Nov.	4	Sat.	1:30 p.m.	Varsity Football - North Carolina at Clemson (Parents' Day).
Nov.	4	Sat.		Admission Test for Graduate Study in Business.
Nov.	4	Sat.		Central Dance Association Concert - Littlejohn Coliseum.
Nov.	6	Mon.	8:00 p.m.	The Frozen World - room 200, Hardin Hall.
Nov.	6	Mon.	9:05-11:15 a.m.	Agronomy - Mr. A. V. Whitney of the Royster Co., Norfolk, Va. - "Plant Food Distribution" - A-203 P&AS.

CALENDAR OF CAMPUS EVENTS Continued

Nov. 7- Nov. 28	Tues.- Tues.			Architecture exhibit - "The Education of an Architect--A Point of View" - Lee Hall Gallery.
Nov. 8	Wed.	7:00	a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Nov. 8	Wed.	8:00	p.m.	Romance and Reality - room 200, Hardin Hall.
Nov. 9	Thurs.	8:00	p.m.	The Hero as Artist - room 200. Hardin Hall.
Nov. 10	Fri.	8:00	p.m.	JV Football at Georgia Tech.
Nov. 11	Sat.	1:30	p.m.	Varsity Football at Maryland.
Nov. 12	Sun.	2:00	p.m.	Soccer - Maryland at Clemson.
Nov. 14	Tues.	8:00	p.m.	The Gregg Smith Singers - Littlejohn Coliseum.
Nov. 14	Tues.	4:00 and 8:00	p.m.	Martin Luther - History Film Series - Daniel Auditorium.
Nov. 15	Wed.	7:00	a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Nov. 15	Wed.	2:00	p.m.	CU Speakers Bureau - John McCook Roots - Daniel Auditorium.
Nov. 15	Wed.	9:05- 11:15	a.m.	Agronomy - Dr. J. B. Jones, Jr., Extension Agronomist, University of Georgia - "Interpretation of Soil and Plant Analyses for Prescribing Lime and Fertilizer Needs" - A-203 P&AS.
Nov. 18	Sat.	1:30	p.m.	Varsity Football at N. C. State.
Nov. 18	Sat.			Declamation Contest.
Nov. 18	Sat.			Central Dance Association Concert - Littlejohn Coliseum.
Nov. 18- Dec. 17	Sat.- Sun.			Architecture exhibit - "Dutch Graphic Art" - Lee Hall Gallery.
Nov. 20	Mon.	8:00	p.m.	Man--The Measure of All Things - room 200, Hardin Hall.
Nov. 21	Tues.	8:00	p.m.	Protest and Communication - room 200, Hardin Hall.

CALENDAR OF CAMPUS EVENTS Continued

Nov.	22	Wed.		Thanksgiving holidays begin after last class.
Nov.	22	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Nov.	23-	Thurs.-		International Student Retreat.
Nov.	25	Sat.		
Nov.	25	Sat.	1:30 p.m.	Varsity Football - South Carolina at Clemson.
Nov.	25	Sat.		Cotillion Club T-Dance.
Nov.	27	Mon.		Classes resume.
Nov.	28	Tues.		Varsity Basketball - Georgia Tech at Clemson.
Nov.	30	Thurs.	2:00 p.m.	CU Speakers Bureau - Julian Bond - Tillman Hall Auditorium.
Nov.	30	Thurs.		Debate - Oxford University, England - Daniel Auditorium.
Dec.	1-	Fri.-		Foreign Language Workshop.
Dec.	2	Sat.		
Dec.	2	Sat.		Varsity Basketball - Davidson at Charlotte.
Dec.	4	Mon.		December graduates turn in Alumni Questionaire and pick up gift.
Dec.	6	Wed.		Dental Aptitude Test.
Dec.	6	Wed.		Varsity Basketball at Furman.
Dec.	7	Thurs.	8:00 p.m.	Graduate wives meeting - YMCA.
Dec.	9	Sat.		Graduate Record Examination.
Dec.	9	Sat.		Varsity Basketball - Presbyterian at Clemson.
Dec.	11	Mon.		Examinations begin.
Dec.	14	Thurs.	7:30 p.m.	"Exploring Poland" - P&AS Aud.
Dec.	16	Sat.		Varsity Basketball - Villanova at Philadelphia.
Dec.	16	Sat.		Architectural School Aptitude Test.

CALENDAR OF CAMPUS EVENTS Continued

Dec.	16	Sat.		Cotillion Club Christmas Dance.
Dec. Jan.	20- 14	Wed.- Sun.		Architecture exhibit - "Visual Awareness" - Lee Hall Gallery.
Dec.	21	Thurs.		Mid-year graduation.
Dec.	22	Fri.		Varsity Basketball - Kent State at Clemson.
Dec.	28	Thurs.		Poinsettia Classic (Clemson, Furman, Pepperdine, Texas) - Greenville.
Dec.	29	Fri.		Poinsettia Classic - Greenville.
Jan.	3	Wed.		Varsity Basketball - Niagara at Clemson.
Jan.	5	Fri.		Dental Aptitude Test.
Jan.	6	Sat.		Varsity Basketball - Maryland at Clemson.
Jan.	8	Mon.		New student orientation.
Jan. Jan.	8- 30	Mon.- Tues.		Architecture exhibit - regional sculpture exhibition - Lee Hall Gallery.
Jan.	9	Tues.		Registration, all students.
Jan.	10	Wed.		Varsity Basketball at North Carolina.
Jan.	11	Thurs.		Classes begin, regular schedule.
Jan.	11	Thurs.	8:00 p.m.	Graduate Wives meeting - YMCA.
Jan.	13	Sat.		Varsity Basketball at Duke.
Jan.	17	Wed.		Varsity Basketball - St. John's at Jamaica, N. Y.
Jan.	17	Wed.	2:00 p.m.	CU Speakers Bureau - Brit Hume - Tillman Hall Auditorium.
Jan.	18	Thurs.	7:30 p.m.	"America of Thee I Sing" - P&AS Auditorium.
Jan.	20	Sat.		Graduate Record Examination.

CALENDAR OF CAMPUS EVENTS Continued

Jan.	20	Sat.		Varsity Basketball - N. C. State at Clemson.
Jan.	20	Sat.		Swimming - Auburn.
Jan.	20	Sat.		Philadelphia Track Classic.
Jan. Jan.	23- 24	Tues.- Wed.		Pesticide Chemical School - Clemson.
Jan.	23	Tues.		Swimming at Emory.
Jan.	24	Wed.		Varsity Basketball - Citadel at Clemson.
Jan.	24	Wed.	8:00 p.m.	The Light of Experience - room 200, Hardin Hall.
Jan. Jan.	25- 26	Thurs.- Fri.		Pesticide Chemical School - Clemson House.
Jan.	27	Sat.		Varsity Basketball - Virginia at Clemson.
Jan.	27	Sat.		Swimming at Georgia Tech.
Jan.	30	Tues.	4:00 and 8:00 p.m.	Cheyenne Autumn - History Film Series - Daniel Auditorium.
Jan.	30	Tues.		Swimming - Belmont Abbey.
Feb.	1	Thurs.	8:00 p.m.	National Players present Shakespeare's As You Like It - Tillman Hall Auditorium.
Feb.				Pest Control Operators' School - (date and place to be announced later).
Feb.				S. C. Ent. Soc. of America - (date and place to be announced later).
Feb.	3	Sat.		Graduate School Foreign Language Test.
Feb.	3	Sat.		Varsity Basketball at Georgia Tech.
Feb.	3	Sat.		Admission Test for Graduate Study in Business.
Feb. Feb.	4- 27	Sun.- Tues.		Architecture exhibit - Southeastern Craftsman International - Lee Hall Gallery.

CALENDAR OF CAMPUS EVENTS Continued

Feb.	5	Mon.	8:00 p.m.	The Pursuit of Happiness - room 200, Hardin Hall.
Feb.	5	Mon.		Swimming - South Carolina.
Feb.	6	Tues.		Varsity Basketball - Stetson at Clemson.
Feb.	6	Tues.	2:00 p.m.	CU Speakers Bureau - Russ Burgess - Tillman Hall Auditorium.
Feb.	7	Wed.	8:00 p.m.	The Smile of Reason - room 200, Hardin Hall.
Feb.	8	Thurs.	8:00 p.m.	Graduate Wives meeting - YMCA.
Feb.	9	Fri.	9:00 p.m.	Varsity Basketball at N.C. State.
Feb.	10	Sat.	7:00 p.m.	Varsity Basketball - North Carolina at Charlotte.
Feb.	10	Sat.		Architectural School Aptitude Test.
Feb.	14	Wed.		Varsity Basketball - Wake Forest at Clemson.
Feb.	15	Thurs.	7:30 p.m.	"South Pacific Isles" - P&AS Aud.
Feb.	16	Fri.	2:00 p.m.	CU Speakers Bureau - Ellen Peck - Tillman Hall Auditorium.
Feb.	16	Fri.		Cotillion Club - Caberet Dance.
Feb.	17	Sat.		Varsity Basketball at Maryland.
Feb.	17	Sat.		Swimming - Augusta College.
Feb.	19	Mon.		Varsity Basketball at Virginia.
Feb.	19	Mon.	8:00 p.m.	"Heavy Organ," with Virgil Fox, organist, and Pablo's Lights Show - Littlejohn Coliseum.
Feb.	19	Mon.		Preliminary Trustee Medal competition.
Feb.	21	Wed.	8:00 p.m.	The Worship of Nature - room 200, Hardin.
Feb.	21	Wed.		Swimming at Appalachian State.
Feb.	24	Sat.		Varsity Basketball at Wake Forest.
Feb.	24	Sat.		Swimming at North Carolina.
Feb.	26	Mon.		Finals, Trustee Medal competition - Daniel Hall.

CALENDAR OF CAMPUS EVENTS Continued

Feb.	28	Wed.		Varsity Basketball - Duke at Clemson.
March 1- March 26		Thurs.- Mon.		Architecture exhibit - drawings from the Dillard Collection - Lee Hall Gallery.
March 1- March 3		Thurs.- Sat.		ACC Swimming Meet.
March	1	Thurs.		Football spring training begins.
March	5	Mon.		Preliminary reports due.
March	7	Wed.	1:00 p.m.	CU Speakers Bureau - Ralph Nader - Tillman Hall Auditorium.
March 8- March 10		Thurs.- Sat.		ACC Basketball Tournament - Greensboro, N. C.
March	8	Thurs.	8:00 p.m.	Les Ballets Africains - Littlejohn Coliseum.
March	8	Thurs.	8:00 p.m.	Graduate Wives meeting - YMCA.
March	9	Fri.		Ft. Hill Clemson Club Annual Ladies Night.
March	9	Fri.		Baseball - West Virginia.
March	11	Sun.		Baseball - North Carolina State.
March	13	Tues.	8:00 p.m.	Houston Symphony Orchestra, Lawrence Foster, conductor, and piano soloist Horacio Gutierrez - Littlejohn Coliseum.
March	15	Thurs.	7:30 p.m.	"The Face of Sweden" - P&AS Aud.
March	15	Thurs.		Baseball - Central Michigan.
March	16	Fri.		Baseball - Maryland.
March	16	Fri.		Spring holidays begin after last class.
March	17	Sat.		Baseball at Mississippi State.
March	19	Mon.		Baseball at Mississippi State.
March 20- March 21		Tues.- Wed.		Baseball at Ole Miss.
March 22- March 25		Thurs.- Sun.		Baseball at Alabama.

CALENDAR OF CAMPUS EVENTS Continued

March	26	Mon.		Classes resume.
March	27	Tues.		Clemson Area Continuing Education Classes.
March	27	Tues.		Baseball at Wake Forest.
March	28	Wed.		Baseball at Western Michigan.
March April	29- 12	Thurs.- Thurs.		Architecture exhibit - Visual Studies Graduate Exhibition - Lee Hall Gallery.
March	29	Thurs.	2:00 p.m.	CU Speakers Bureau - Frank Reynolds (ABC) - Tillman Hall Auditorium.
March March	30- 31	Fri.- Sat.		Baseball at Duke.
March	31	Sat.		Sumter Spring Game.
April	1	Sun.		Baseball at Maryland.
April April	3- 5	Tues.- Thurs.		"Conference on the Biological Aspects of the Bird/Aircraft Collision Problem" sponsored by the Air Force Office of Scientific Research. Dept. of Zoology (host).
April	3	Tues.		Clemson Area Continuing Education Classes.
April	3	Tues.	4:00 and 8:00 p.m.	Our Daily Bread - History Film Series - Daniel Auditorium.
April	4	Wed.		Baseball at South Carolina.
April	5	Thurs.	8:00 p.m.	Graduate Wives meeting - YMCA.
April	5	Thurs.		Baseball at Georgia.
April	6	Fri.		Baseball - Virginia.
April	7	Sat.		Baseball - Georgia Southern.
April	8	Sun.		Baseball - Wake Forest.
April	10	Tues.		Clemson Area Continuing Education Classes.
April	11	Wed.		Honors and Awards Day - classes suspended at 12 noon.

CALENDAR OF CAMPUS EVENTS Continued

April 11	Wed.		Baseball at Georgia.
April 13	Fri.		Baseball at N. C. State.
April 14	Sat.		Graduate School Foreign Language Test.
April 14	Sat.		Baseball at North Carolina.
April 14	Sat.		Clemson Spring Game.
April 15- May 7	Sun.- Mon.		Architecture exhibit - "The Television" - Lee Hall Gallery.
April 15- April 19	Sun.- Thurs.		College of Engineering - The Fifth International Symposium on Biomaterials entitled "Prostheses and Tissue: The Interface Problem."
April 15	Sun.		Baseball at Virginia.
April 16	Mon.	8:00 p.m.	The Fallacies of Hope - room 200, Hardin Hall.
April 17	Tues.		Clemson Area Continuing Education Classes.
April 17	Tues.	4:00 and 8:00 p.m.	Grand Illusion - History Film Series - Daniel Auditorium.
April 17	Tues.		Baseball at Georgia Tech.
April 18	Wed.	2:00 p.m.	CU Speakers Bureau - Senator Fred Harris - Daniel Auditorium.
April 19	Thurs.	8:00 p.m.	Heroic Materialism - room 200, Hardin Hall.
April 19- April 22	Thurs.- Sun.		Baseball ACC Tournament.
April 23	Mon.		Baseball - Georgia.
April 24	Tues.		Clemson Area Continuing Education Classes.
April 24	Tues.		Baseball at Georgia Tech.
April 26- April 27	Thurs.- Fri.		Baseball - Florida State.

CALENDAR OF CAMPUS EVENTS Continued

April	27	Fri.	Dental Aptitude Test.
April	27	Fri.	May graduates turn in Alumni Questionaire and pick up gift at Alumni office.
April	28	Sat.	Graduate Record Examination.
April	28	Sat.	Baseball -- USC at Spartanburg.
April	30	Mon.	Examinations begin.
May			Medical College Admission Test (Day to be announced).
May	1	Tues.	Clemson Area Continuing Education Classes.
May June	9- 30	Wed.- Sat.	Architecture exhibit - architectural thesis exhibition.
May	11	Fri.	Commencement.
May	11	Fri.	Cotillion Club Dinner Dance.
May May	18- 20	Fri.- Sun.	Southeastern Regional Meeting of the Animal Behavior Society. Dept of Zoology (host).
May	21	Mon.	Registration first session summer school.
May	22	Tues.	Classes begin.
June June	3- 30	Sun.- Sat.	Boys Tiger Basketball Camp.
June June	8- 10	Fri.- Sun.	1973 Alumni Reunion Weekend.
June	8	Fri.	Alumni National Council and Foundation meet at Clemson House.
June June	10- 15	Sun.- Fri.	Tiger Sports Camp.
June	16	Sat.	Graduate Record Examination.
June June	27- 28	Wed.- Thurs.	Examinations.
July	2	Mon.	Orientation new students.
July	3	Tues.	Registration, second session summer school.

CALENDAR OF CAMPUS EVENTS Continued

July	4	Wed.	Classes begin.
July	17-	Tues.-	State 4-H conference - campus.
July	20	Fri.	
July	28	Sat.	Graduate School Foreign Language Test.
July	29-	Sun.-	Girls Tiger Basketball Camp.
Aug.	11	Sat.	
Aug.	4	Sat.	Classes meet.
Aug.	8-	Wed.-	Examinations.
Aug.	9	Thurs.	
Aug.	11	Sat.	Graduation.

1972-73 CALENDAR OF INTRAMURAL SPORTS
(TENTATIVE)

Sept.	11	Mon.	Softball - men, women; round robbin; entries - Aug. 28-Sept. 6.
Sept.	21	Thurs.	Soccer; round robbin; entries - Sept. 11-19.
Sept.	21	Thurs.	Cross Country meet; entries - Sept. 11-19.
Sept.	21	Thurs.	Tennis - men's doubles; meet; entries - Sept. 11-19.
			Tennis - women's doubles; single elimination; entries - Sept. 11-20.
Sept.	25	Mon.	Horse shoes; round robbin; entries - Sept. 11-20.
Sept.	25	Mon.	Bowling; double elimination; entries - Sept. 11-20.
Sept.	28	Thurs.	Track - freshmen; meet; entries - Sept. 4-25.
Oct.	5	Thurs.	Track - upper-classmen; meet; entries - Sept. 4-25.
Oct.	12	Thurs.	Track - championship; meet; entries - Sept. 4-25.
Oct.	12	Thurs.	Softball - inter-fraternity; double elimination; entries - Sept. 28-Oct. 6.
Oct.	16	Mon.	Football - touch, powder puff; round robbin; entries - Oct. 2-11.
Dec.	4	Mon.	Football - interfraternity; double elimination; entries - Nov. 13-20.
Jan.	15	Mon.	Basketball - men, women; round robbin; entries - Jan. 8-12.
Jan.	15	Mon.	Handball; round robbin; entries - Jan. 8-12.
Feb.	12	Mon.	Handball - inter-fraternity; double elimination; entries - Feb. 5-8.

INTRAMURAL SPORTS CALENDAR Continued

Mar.	2	Fri.	Basketball - interfraternity; double elimination; entries - Feb. 20-27.
Mar.	15	Thurs.	Swimming meet - women, men; entries - Mar. 3-10.
Mar.	26	Mon.	Volleyball - men, women; round robbin; entries - Mar. 12-22.
Apr.	3	Tues.	Tennis - men's singles, women's singles; single elimination; entries - Mar. 19-29.
Apr.	8	Sun.	Volleyball - inter-fraternity; double elimination; entries - Mar. 19-29.
Apr.	8	Sun.	Horseshoes; round robbin; entries - Apr. 1-6.
Apr.	12	Thurs.	Track (spring); meet; entries - Apr. 3-6.

FOREIGN LANGUAGE FILM SERIES
CALENDAR OF EVENTS

Sept.	4	Mon.	8:00 p.m.	Spanish Feature Film (English sub-titles) - Daniel Theatre.
Sept.	18	Mon.	8:00 p.m.	French Feature Film (English sub-titles) - Daniel Theatre.
Oct.	9	Mon.	8:00 p.m.	German Feature Film (English sub-titles) - Daniel Theatre.
Oct.	30	Mon.	8:00 p.m.	Spanish Feature Film (English sub-titles) - Daniel Theatre.
Nov.	13	Mon.	8:00 p.m.	French Feature Film (English sub-titles) - Daniel Theatre.
Nov.	20	Mon.	8:00 p.m.	Spanish Feature Film (English sub-titles) - Daniel Theatre.
Jan.	15	Mon.	8:00 p.m.	Spanish Feature Film (English sub-titles) - Daniel Theatre.
Jan.	29	Mon.	8:00 p.m.	French Feature Film (English sub-titles) - Daniel Theatre.
Feb.	12	Mon.	8:00 p.m.	German Feature Film (English sub-titles) - Daniel Theatre.
March	5	Mon.	8:00 p.m.	Spanish Feature Film (English sub-titles) - Daniel Theatre.
March	12	Mon.	8:00 p.m.	French Feature Film (English sub-titles) - Daniel Theatre.
April	2	Mon.	8:00 p.m.	German Feature Film (English sub-titles) - Daniel Theatre.
April	16	Mon	8:00 p.m.	Spanish Feature Film (English sub-titles) - Daniel Theatre.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room 28, Tillman Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER
INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

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Vol. 12 No. 2 September 1, 1972

BOARD OF TRUSTEES APPROVES 1972-73 BUDGET

Clemson University's Board of Trustees approved budgets August 23 for the 1972-73 academic year, $29,253,921 for educational and general programs and $15,024,024 for its various public service programs.

The total operational budget of $44,277,945 is a 9.1 per cent increase over last year's $40,581,137.

The major portion of the budget -- $22,091,721 -- is allocated for academic programs. Allocations for other educational and general items include auxiliary enterprises (principally housing and food service) $3,487,221; and affiliated activities, $3,674,979.

Expenditures for public service programs include agricultural research, $6,003,554; agricultural extension service, $7,116,686; forest and recreation research, $298,083; fertilizer inspection and analysis, $173,335; and livestock-poultry health department, $1,432,346.

The budget also contains a $3,283,000 estimate of revenues earmarked by law for payment on bond debt and notes for permanent improvements.

The Board adopted resolutions honoring the memories of James F. Byrnes, whose service as a Clemson trustee spanned 31 years, and Winchester C. Smith Jr., a life trustee for more than 18 years. It also approved the naming of two residence halls -- one completed and the other under construction -- in honor of Mr. Byrnes and Mr. Smith.

The following names were approved for other campus facilities:

-- Jordan Hall (proposed biological sciences building) in honor of the late Marshall Jordan, an alumnus and benefactor of Clemson, and his wife Evelyn.

-- Starkey Swine Center in honor of Lawrence V. Starkey, former head of the department of animal husbandry.

-- Dillard Building (laundry facilities, central services and other activities) in honor of Frank Dillard, former manager of the campus laundry and Clemson employee for 46 years.

BOARD OF TRUSTEES APPROVES 1972-73 BUDGET Continued

For purposes of clarification and identification, Harcombe Commons will become Harcombe Dining Hall and Schilletter Hall will be known as Schilletter Dining Hall.

In other actions, the Board:

-- Approved a name change for the Department of Physics to the Department of Physics and Astronomy to more accurately reflect the full scope of that division.

-- Approved a resolution providing for the issuance of $1,100,000 in student and faculty housing revenue bonds to cover construction of the new Smith Hall.

-- Approved an increase in monthly rental rates for Clemson House apartments, effective Oct. 1, due to increasing operational costs; and authorized the administration to make changes when justified in the daily and weekly rates for transient rooms and meeting rooms.

-- Confirmed the appointment of Dr. Luther P. Anderson as dean of the College of Agricultural Sciences.

-- Approved a recommendation by the Scholarships and Awards Committee that income from the Daniel Memorial Fund be used to create two non-renewable $500 scholarships for incoming freshmen.

The board approved routinely several other items, including revised South Carolina seed certification standards; contracts for the construction of Smith Hall, Frank Johnstone Jervey Athletic Center, and the Wildlife Biology Research Center; and the termination of Clemson University at Greenville's operation at the end of the 1972-73 academic year.

WADDELL AND McALISTER ELECTED TO BOARD OF TRUSTEES

State Sen. James M. Waddell Jr. of Beaufort and Laurens Attorney Paul W. McAlister have been elected life members of the Clemson University Board of Trustees.

State Sen. Edgar A. Brown, president of the Board, announced that Waddell and McAlister will fill vacancies left by the death of James F. Byrnes and Winchester C. Smith Jr.

In accordance with the provision of Thomas Green Clemson's will, the Board of Trustees consists of 13 members, seven self-perpetuating life trustees and six elected by the General Assembly for terms of four years. Vacancies occurring in the membership of life trustees are filled by unanimous vote of surviving life members.

Waddell has served continuously in the S.C. General Assembly since 1954, first as a member of the House and as State Senator since 1960. He ranks tenth in senate seniority. He is a graduate of Tennessee Military Institute and The Citadel where he received the B.S. degree in civil engineering in 1947 and the honorary Doctor of Laws degree in 1972.

WADDELL AND McALISTER ELECTED TO BOARD OF TRUSTEES Continued

He serves on numerous special committees, including the Governor's Committee on Mental Health and Mental Retardation (chairman), the S.C. Water Resources Study Committee (chairman), the Governor's committee on agriculture and a special task force (national 150 member board) to study education of the handicapped, sponsored by the Education Commission of The States.

Waddell also chaired the special committee to formulate hospital and medical service plans for state employees.

McAlister served in various executive positions with Laurens Glass, Inc., for 17 years and now practices law in Laurens. He holds directorships with Indian Head Inc. and Palmetto Bank of Laurens. He holds a textile engineering degree from Clemson and a law degree from the University of South Carolina.

Active in public affairs, McAlister served as a trustee of Laurens School District for 14 years until 1970. He is a member of Wofford College's Council of Wofford Associates, Emory University's Candler Theological School Committee of 100, and served on the Clemson Board of Visitors in 1966.

VOTING HOLIDAYS SCHEDULED FOR STUDENTS

President Robert C. Edwards has announced that August 29 and November 7 will be class holidays for Clemson University students so that they may vote in the Democratic primary and general election scheduled for those days.

This decision followed consideration of a resolution passed by the 1972 General Assembly designating August 29 as a holiday for all students of State-supported institutions of higher learning. Because of the large number of newly franchised eighteen-year-old voters and the resulting greater interest in the elections, the University's executive officers felt it would be appropriate to follow the August 29 precedent by declaring November 7 a class holiday also.

SOCCER TEAM WILL HOST UNIVERSITY OF URUGUAY

Soccer Coach I.M. Ibrahim has announced that Clemson University's soccer team will host the soccer team from the University of Uruguay (Montevideo) Sept. 16 at 2:00 p.m. Arrangements for the game were made by the U.S. State Department through the Governmental Affairs Institute.

The soccer event will mark Clemson's first participation in an international team match in any sport.

DEAN RUSK ADDED TO SPEAKERS BUREAU SCHEDULE

Dean Rusk of the University of Georgia Law School and former U.S. Secretary of State will speak at Clemson Sept. 14 at 2 p.m. in Tillman Auditorium.

Rusk's visit is being sponsored by the Campus Speaker's Bureau and is an addition to the schedule announced in the August 1 issue of the Clemson Newsletter.

Douglas Kiker and Paul Duke of NBC will open the 1972-73 schedule on Sept. 12, also at 2 p.m. in Tillman Auditorium.

THE GRADUATE SCHOOL

The Graduate School is pleased to announce the appointment of Dr. Farrell B. Brown, Associate Professor of Chemistry, as Assistant to the Dean of Graduate Studies and University Research. Dr. Brown will be employed by the Graduate School full time during the summer months, whereas, he will retain halftime teaching responsibilities in the department of Chemistry and Geology during the academic year. Dr. Brown will provide administrative assistance in all matters concerning the Graduate School.

ENVIRONMENTAL SYSTEMS ENGINEERING

John H. Austin (Prof) has been appointed to the American Society for Engineering Education Environmental Student Awards Committee.

T. M. Keinath (Assoc Prof) has received notification from the Dept. of the Army of approval of second year funding for a research project entitled, "Mathematical Modeling of Heterogeneous Sorption in Continuous Contactors for Wastewater Decontamination." The total funding to date is $29,259.

MATHEMATICAL SCIENCES

James A. Reneke (Assoc Prof) recently published "Continuity for Stieltjes-Volterra Integral Equations," in Revue Roumaine De Mathematiques Pures et Appliquees, No. 3, Vol. 17 (1972).

ELEMENTARY AND SECONDARY EDUCATION

Chester R. Freeze (Prof) published an article entitled, "Perception Changes in Teacher Aides," which appeared in Impact -- Technical Education in South Carolina, Volume 5, No. 7, 1972.

COLLEGE OF NURSING

Arline M. Duvall (Assoc Prof) was granted the degree of Doctor of Education by Columbia University on June 28.

ADDITIONAL NEW FACULTY AND STAFF, 1972-1973

College of Agricultural Sciences

Alston, Rowland P., Instructor in Agronomy and Soils; B.S., M.A., Clemson University; Married; 1508 Washington Street, Columbia 29201

Davis, Jerry B., Assistant Agricultural Engineer; B.S., M.S., University of Georgia; Married, one child; Church Street, Central 29630

Lewis, Archie J., III, Instructor in Horticulture; B.S., M.S., Clemson University; Single

Pollet, Dale K., Assistant Professor, Entomology and Economic Zoology; B.S., M.S., Louisiana State University; Ph.D., Virginia Polytechnic Institute; Married, one child; 207 Holly Avenue, Clemson

Yonce, Henry D., Assistant Professor of Agronomy and Soils; B.S., Clemson University; Ph.D., University of Illinois; Married, two children; Box 631, Florence 29501

College of Liberal Arts

Arling, Gregory W., Instructor in Sociology; B.A., Augustana College; M.A., University of Illinois; Married

Jones, Allie F., Mrs., Instructor in Sociology; B.A., M.A., Emory University

Olson, Robert W., Instructor in History; B.S., Bemidji State College; M.A., Indiana University; Married; #8 Lake View Apartments

Wall, Edmond L., Instructor in French and Spanish; B.A., M.A., Louisiana State University; Single

College of Nursing

Marino, Catherine P., Mrs., Assistant Professor, Baccalaureate Degree Program; B.S.N., M.S., Catholic University of America; M.N., University of Florida

McPeak, Audra L., Mrs., Instructor, Associate Degree Program; B.S.N., University of Kansas

Privette, Esther B., Mrs., Instructor, Associate Degree Program; B.S.N., University of South Carolina

Clemson University at Sumter

Bennett, Madeline, Mrs., Instructor in Zoology; B.S., Birmingham Southern College; M.S., University of Alabama; Married; 814 Mathis Street, Sumter 29150

Leedy, Richard, Instructor in Mathematics; B.S., Mobile College; M.S., University of Southern Mississippi; Single; 446 West Hampton Apartment B, Sumter 29150

GRADUATE COUNCIL, MAY 3, 1972

The meeting of the Graduate Council was called to order by Dean Schwartz. Members present were: Dr. Wolf, Dr. Camper, Dr. Freeze, Dr. Graben, Professor Means, Dr. Bolen, Dr. Allen, Mr. Mims, and Mr. Bostic.

The minutes of the April 14, 1972 minutes were approved as distributed.

Graduate student candidates for May 1972 graduation were approved as distributed.

Dr. Wolf recommended that no further action be taken on the proposed Ocean and Coastal Engineering program at the present time.

Dr. Graben, chairman of the Language Policy subcommittee, presented the recommendations of the Language Department for completion of the language requirements:

Option 1
Upon the recommendation of the Head of the Department of Languages, students who have completed, within the last five years, the equivalent of 12 semester hours of study of a language at an accredited college with average grades of B will be exempted from examination in that language.

Option 2
The student may complete the basic reading knowledge requirement by attaining the 30th percentile on the Graduate School Foreign Language Tests (GSFLT). The "command in depth" requirement may be fulfilled by attaining the 60th percentile on this same test.

Option 3
The student may elect to enroll in French 151 or 152, or German 151 or 152. The 151-152 sequence in French and German is designed to prepare graduate students to read technical material in their particular academic discipline. This sequence is given on a pass-fail basis. To receive a pass, the student must present a satisfactory score from either the College Entrance Examinations Board test (CEEB), the GSFLT (see option 2), or a locally prepared Translation Exam similar to the GSFLT. In the absence of this, he will receive on his report an incomplete (I).

A) The CEEB: The first form of the CEEB test will be used at the end of 151 and the second form at the end of 152. Passing scores on either of these tests will be 525 in French and 500 in German for the basic reading knowledge requirement and 625 in French and 600 in German for the in-depth requirement, and such scores may be achieved in either 151 or 152. A passing score achieved at the end of 152 will automatically eradicate an incomplete in 151, but university procedures must be followed in order to change the incomplete (I) to pass (P). Please note that a P in

GRADUATE COUNCIL, MAY 3, 1972 (Continued)

151 or 152 merely indicates that a student has attained a proficiency equivalent to the basic reading knowledge requirement; it does not indicate that he has fulfilled his Graduate School requirement. The Graduate School, based on information provided by the Department of Languages, will notify the student when he has completed his requirement.

A student may repeat each course only once but may audit an unlimited number of times. An auditor does not qualify to take the CEEB. He may, however, take either the GSFLT or the Translation Exam.

B) The Translation Exam will require a score of 80 in either French or German.

After discussing Option 3 of the recommendations from the Language Department, Dr. Graben made the following motion:

"It is recommended to the Graduate Council that Dr. Stewart's proposal as stated under Option 3 in his communication be approved by the Council. Further, his proposal, as stated under Option 2, to change the present passing scores of 25th percentile and 75th percentile to 30th percentile and 60th percentile respectively is recommended for approval.

In regards to the matter of substituting other languages for those presently approved, the following statement is suggested:

Upon the recommendation of the Head of the Department of Languages, use of other languages may be approved provided (a) adequate justification can be presented, (b) the language is not native to the student, and (c) a proper testing procedure can be established. Any expense incurred in obtaining off-campus assistance in testing must be paid by the student."

This motion was amended as follows: Add under option 3 (a), "...or other scores as determined appropriate by the Language Department," and "The Language Department shall inform the Graduate Council of any changes in the level of scores required to complete the requirement of Option 3." The motion was seconded and approved. Dr. Graben recommended that Option 2 be approved and amended to include "effective July 1, 1973." This motion was seconded and approved with seven voting for the approval, one dissenting, and one abstaining. Dr. Graben made a motion that the following be added regarding the language policy: "The Graduate School may approve languages other than those recommended." The motion was seconded and passed unanimously.

The request to offer Education 606, History and Philosophy of Education, at Erskine College for graduate credit during the summer of 1972 was discussed. Dr. Freeze made a motion to approve this request. The motion was seconded and passed. Dr. Wolf made a motion that Clemson University enter into a contract

GRADUATE COUNCIL, MAY 3, 1972 (Continued)

involving only senior level courses with other colleges and that this become effective at the beginning of the 1973 summer sessions. The motion was seconded, and approved.

Dr. Wolf reported the results of a special meeting held on Monday, May 1, 1972 in regard to one thesis authored by two graduate students. It was recommended that this thesis be accepted and that the Graduate Dean express to the College of Architecture the Graduate Council's concern regarding the need for better planning and prior approval for matters requiring interpretation of Graduate School policies.

Various members of the Graduate Council expressed appreciation to the Council for the work and accomplishments of the past year.

Other than the August meeting to approve candidates, the next regular meeting will be held in September. A motion was made to adjourn and was seconded and passed.

FACULTY RESEARCH COMMITTEE GRANT APPLICATIONS

Proposals for faculty research committee grants should be in the Office of University Research (107 Martin Hall) not later than November 1, 1972. Application forms may be secured in the Office of University Research. Only proposals using the Faculty Research Committee application form will be considered by the committee.

The committee makes awards to new faculty members initiating research, to faculty members initiating research in a new area, and in areas where other sources of support are inadequate or non-existent.

CLEMSON PI KAPPA ALPHA CHAPTER WINS NATIONAL AWARDS; REEL ELECTED VICE PRESIDENT

Clemson University's Eta Alpha chapter of Pi Kappa Alpha won two top awards at the fraternity's national convention in Miami. The chapter received the prestigious Smythe Award given annually to the chapter whose overall record of achievement qualified it as the fraternity's most outstanding. Eta Alpha also won the Hippel Award for involvement in campus activities.

At the same convention, Dr. J.V. Reel (Assoc Prof, Hist) was elected national vice president of Pi Kappa Alpha. Reel is an advisor to the Clemson chapter.

CALENDAR OF CAMPUS EVENTS

Sept.	4	Mon.	8:00 p.m.	Spanish Feature Film (English sub-titles) - Daniel Theatre.
Sept.	6	Wed.	9:05-11:15 a.m.	Agronomy - Dr. I.M. Wofford of the Kaiser Corp., Savannah, Ga. - "Production, Marketing, and Use of Nitrogen Fertilizer" - A-203 P&AS.
Sept.	6	Wed.	6:30 p.m.	Fort Hill Clemson Club "Shrimp & Sip" - Wilson's Landing (postponed to Sept. 8th if rain).
Sept.	7	Thurs.	8:00 p.m.	Graduate Wives meeting -- YMCA.
Sept. 8- Sept.	10	Fri.- Sun.		Baptist Student Union planning retreat - Camp Greenville.
Sept.	9	Sat.	1:30 p.m.	Varsity Football - Citadel at Clemson (IPTAY Day).
Sept.	9	Sat.		Central Dance Association Concert - Littlejohn Coliseum.
Sept.	11	Mon.		Softball - men, women; round robbin; entries - Aug. 28 - Sept. 6.
Sept.	12	Tues.	2:00 p.m.	CU Speaker Bureau - Douglas Kiker and Paul Duke of NBC - Tillman Hall Auditorium.
Sept.	13	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Dining Hall.
Sept.	14	Thurs.	2:00 p.m.	CU Speakers Bureau - Dean Rusk - Tillman Hall Auditorium.
Sept.	14	Thurs.	4:00 and 8:00 p.m.	Howards of Virginia - History Film Series - Daniel Auditorium.
Sept.	14	Thurs.		Baptist Student Union parents-students adoption picnic.
Sept.	15	Fri.		Cotillion Club - Caberet Dance.
Sept. 16- Oct.	10	Sat.- Tues.		Architecture exhibit - "The New Eye in Chinese Painting" - Lee Hall Gallery.

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All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room 28, Tillman Hall.

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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 3 September 15, 1972

ON-CAMPUS ENROLLMENT TOTALS 8,600

The registrar's office reports that on-campus enrollment for the University's 80th fall semester totals 8,600 -- 7,350 undergraduates and 1,250 graduate students.

In addition, 530 students are enrolled at the Sumter and Greenville campuses and 146 graduate students are enrolled in the joint Clemson-Furman University Master of Business Administration degree program. Final figures were not yet available for the number of graduate students enrolled at special off-campus institutes, but this number is estimated to reach about 400. Total enrollment is thus expected to reach about 9,676 students, compared with 8,890 last year.

HAYDEN TRUST WILL BENEFIT HORTICULTURE

With a nucleus gift to Clemson University of personal assets worth $40,000, Claude J. "Pappy" Hayden has created an irrevocable trust whose resources will benefit the education and research programs of Clemson's Horticulture Department, especially the curriculum in ornamental horticulture.

Hayden, who for nearly a half-century has been a key leader in the advancement of the southern nursery industry, owns and operates one of the largest nurseries in Alabama. He is a South Carolinian by birth and earned his bachelor's degree in horticulture at Clemson in 1912.

Income from The C.J. Hayden Foundation Trust will be available to the university each year and the trust itself will eventually become the property of the university.

In announcing the trust, Dr. T.L. Senn, head of the Horticulture Department commented on Hayden's longtime support and contributions, adding, "his generosity has enabled us to attain an extra measure of excellence in our efforts."

CONSTRUCTION PROJECTS UNDER WAY ON CAMPUS

Construction crews and heavy-duty cranes are at work on new buildings and improvements around the campus.

By the end of November the alumni staff expects to move into its new Alumni Center located on the wooded slope fronting the Clemson House. Mid-1973 is the expected completion date for the new Frank Johnstone Jervey Athletic Center, located just across from Littlejohn Coliseum, and the renovations and additions to the old Fike Field House. Both are part of the total University Union and activities program.
(Continued on page 2.)

CONSTRUCTION PROJECTS UNDER WAY ON CAMPUS Continued

Fike Recreation Center will provide space for all of the most popular indoor sports and physical training activities. Among these will be a Natatorium which includes a standard AAU-size swimming pool and diving tank.

On the east campus work has begun on Smith Hall, a third low-rise residence hall for 150 students. Occupancy is expected August 1973.

Two other buildings opened with the beginning of fall semester. Renovation of Sikes Hall, Clemson's former library building is almost complete and is already occupied by executive and university administrative offices. Sloan Tennis Center, adjacent to the tennis courts, is the impressive new home of the varsity tennis team.

FACULTY BOOK COLLECTION TO BE ESTABLISHED IN ACADEMIC AFFAIRS OFFICE

Dr. Victor Hurst, vice president for academic affairs and dean of the University, is building a collection of books authored by Clemson University faculty members. The collection will be displayed in bookshelves which cover one wall of his office's new quarters at 209 Sikes Hall.

Hurst notes, "I feel that this office represents the faculty and that faculty members can be a part of it by offering books -- textbooks, novels or other published works -- that are suitably bound."

Dean Hurst requests that faculty members bring to him personally books which are appropriate for this collection.

The office already maintains files such as the Minutes of the Educational Council, the Minutes of the Faculty Senate Meetings, the Minutes of Faculty Meetings, University Catalogs and related materials such as self-study reports and reports of various accrediting committees which have visited the campus. There is also an impressive TAPS collection housed in this office.

"I also wish to take this opportunity to extend a cordial invitation to all faculty members who may wish to drop by for a chat and, incidentally, view a new facility of which we can all be very proud," Hurst added.

INSTALLATION OF NEW COMPUTER IS ON SCHEDULE

Computer Center Director Merrill Palmer reports that the installation of a new System 370, Model 155, computer is proceeding on schedule. The new machine, which replaces the System 360, Model 50, is expected to be operational by October 1.

The speed and capacity of the new system will result in significant advances in service to users, including development of remote computing facilities. A card reader and a printer will be dedicated to short jobs for very rapid turnaround.

The Computer Center publishes a monthly newsletter, COMPUSION, for the edification of computer users. Interested faculty and staff members can be added to the subscription list by calling Bea Cole on extension 3466.

EXHIBITION WILL HONOR A. WOLFE DAVIDSON

A retrospective exhibition honoring the 50th anniversary of sculptor A. Wolfe Davidson's immigration to America will be held at Clemson University's Rudolph Lee Gallery Sept. 17 - Oct. 17.

The exhibition features 40 ceramic and bronze sculptures and oil paintings by the Russian-born artist, who has had close personal and career ties with Clemson throughout the past four decades.

Three of Davidson's best known works are at the university: the bronze statue of Thomas Green Clemson located in front of Tillman Hall, the massive alumnum Tiger on the east lawn of Littlejohn Coliseum, and the caststone football panel at Fike Recreation Center.

Davidson, who also designed the sesqui-centennial half-dollar of Columbia in 1971, was among the pioneer artists and art patrons who were instrumental in organizing the Greenville Art Association in the 1930s.

Davidson was director of the art department at Brenau College in Gainesville, Ga., from 1948 until his retirement in 1966. The artist still follows a busy schedule in his studio in Gainesville.

Lee Gallery, located in Lee Hall on the south campus, is open Monday through Friday 9 a.m. - 4:30 p.m.; Saturday and Sunday, 2 - 5 p.m. Exhibitions are sponsored by the College of Architecture and the Clemson Architectural Foundation.

GIVE PEDESTRIANS THE RIGHT OF WAY

The Security Department reports that many persons driving vehicles are ignoring pedestrians walking in a marked cross-walk. Your attention is called to Paragraph 4-7 of the Clemson University Traffic code (Student Handbook, page 205) which reads "Pedestrians in marked cross-walks have right of way."

COUNSELING CENTER WILL CONDUCT STUDY HABIT TRAINING GROUPS

The Clemson University Counseling Center (Room 20, Tillman Hall) is conducting study habit training groups in the residence halls this semester. The program is designed to help average freshman and sophomore students improve their ability to study. Each group meets twice a week for five weeks and students may begin any time. No fee is charged and no academic credit is given. Interested students should be referred to the Counseling Center for testing and evaluation. Follow-up studies will be made to determine the effectiveness of the program.

BOSTIC ASSIGNED TO DEPARTMENT OF AGRICULTURE

Clemson University graduate Dr. James E. Bostic Jr., who was named a 1972-73 White House Fellow last June, has been assigned to the U.S. Department of Agriculture, Secretary of Agriculture Earl L. Butz has announced.

Bostic received his bachelor's degree, with honors, in textile chemistry in 1969 and his doctorate in textile chemistry last spring. He earned many honors

(Continued on page 4.)

BOSTIC ASSIGNED TO DEPARTMENT OF AGRICULTURE Continued

during his academic career, including a Ford Foundation Doctoral Fellowship as one of the 40 top black scholars in the country in 1968-69. As a graduate student he was a member of the University Graduate Council and was elected president of the Blue Key National Honor Fraternity.

The Bennettsville native has been a senior research scientist with American Enka Co. in Enka, N.C., since graduating where he did research on reducing hazards of flammable textile fabrics.

His assignments in the Office of the Secretary of Agriculture will be varied, but some will involve agricultural research.

DANFORTH FELLOWSHIPS FOR COLLEGE TEACHING CAREERS 1973-74

Danforth Fellowships have been awarded by the Danforth Foundation since 1952. The purpose of the program is to give personal encouragement and financial support to selected college seniors and recent graduates who seek to become college teachers, and who are vitally interested in relating their educational plans to their basic values.

1. Fellowships are open to all qualified persons of any race, creed or citizenship, single or married, who have serious interest in careers of teaching and/or administration in colleges and universities, and who plan to study for a Ph.D. (or an appropriate advanced terminal degree, e.g., M.F.A. in the Fine Arts) in any field of study common to the American undergraduate liberal arts curriculum. 2. Applicants must be under 30 years of age at the time application papers are filed, and may not have undertaken any graduate or professional study beyond the baccalaureate. 3. Those who are enrolled at the time of application in a combined B.A./M.A. program are eligible, provided the bachelor's degree has not already been awarded. 4. Applicants must be planning to enter an accredited U.S. graduate school in the fall of 1973.

The award is for one year, and is normally renewable until completion of the degree or for a maximum total of four years of graduate study. Fellowship stipends are based on individual need, but may not exceed:

	Single	Married
For the academic year.....	$2025	$2200
For the calendar year.....	$2700	$2950

plus dependency allowances for children and required tuition and fees.

Candidates for appointment to the Fellowships are restricted to those persons nominated by Liaison Officers in accredited American undergraduate colleges. Clemson may nominate four candidates from among seniors and recent graduates who meet the qualifications noted above. Application materials are sent to the nominees, and completed applications are due in the Danforth Foundation office not later than November 20. Interested persons should contact Dean Schwartz by October 15.

MINUTES OF UNIVERSITY UNDERGRADUATE COUNCIL, JULY 31, 1972

The Undergraduate Council met in Room 0-106, Martin Hall with the following present: Dean Claud B. Green (Chairman), Luther Baxter, Carolyn Briscoe, Lamar H. Brown, Robert L. Cross, C. C. Fain, Lawrence W. Gahan, B. E. Gilliland, Thomas Lavender (Student Representative), J. V. Reel, M. J. Skove, E. A. Vaughn, K. N. Vickery, and Frank A. Burtner (Visitor).

Dean Green distributed copies of a proposal submitted by Dr. W. C. Godley, Chairman of the Honors Council, for an Honors Program in the College of Agricultural Sciences. The curriculum committee of the College of Agricultural Sciences had previously approved the proposal. Following discussion a motion to accept the proposal as submitted was passed.

A proposal submitted by the Preprofessional Health Curricula Committee for a revision of the undergraduate program in pre-medicine and pre-dentistry was explained by Dr. Frank A. Burtner. The proposed plan of study would enable a student to pursue a degree in almost any curriculum so long as the basic requirements of Medical and Dental Schools are met.

After discussion a decision was made to delay action on the proposal. A subcommittee will be appointed by Dean Green to study the proposal and submit a recommendation to the council at a later date.

A subcommittee report on the proposal for a major in Occupational Safety and Health in Administrative Management was submitted by Dr. J. V. Reel, Subcommittee Chairman. Following is a copy of the report:

Report to the Undergraduate Council

The Subcommittee on the proposal for a field of major concentration in OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION IN ADMINISTRATIVE MANAGEMENT.

This committee, composed of C. C. Fain, E. A. Vaughn, and J. V. Reel, met 18 July and 27 July 1972 to discuss the proposal. At various times the committee was joined by representatives of the Colleges of Agriculture, Architecture, Forest and Recreation Resources, and the Faculty Senate.

A variety of information and advice was offered to this subcommittee, which indicated that the question of occupational safety is of interest to most of the colleges in the University, and the following report is based upon much of that advice.

MINUTES OF UNIVERSITY UNDERGRADUATE COUNCIL, JULY 31, 1972 (Continued)

RECOMMENDATIONS:

I. That the proposal for a major be approved with the following changes or suggestions:

A. The freshman year curriculum be expanded to include Engineering Graphics 103 or justify why this course, specified in the national curriculum for safety professionals is omitted.

B. Expand the senior technical electives to include Speech, Psychology, and Humanities, as specified in the national curriculum for safety professionals.

C. Provide a syllabus on Safety Health 403 and 404 to insure no overlap with existing courses in the College of Engineering.

II. That the University Committee on Occupational Health be activated to advise on interdisciplinary aspects of undergraduate, graduate, and extension programs.

These are the unanimous recommendations of the subcommittee.

J. V. Reel, Jr., Chairman

There was a motion and second to accept the subcommittee report.

A motion to delete the term Administration from the program title failed to receive a second.

Following a statement of clarification by Dr. E. A. Vaughn, a motion was carried to amend the report by deleting the following statement:

> The freshman year curriculum be expanded to include Engineering Graphics 103 or justify why this course, specified in the national curriculum for safety professionals is omitted.

A motion to eliminate the option of taking physical science rather than chemistry in the freshman year was defeated.

The amended report was approved by a vote of eight (8) to three (3). Those voting for the report were: J. V. Reel, Lamar H. Brown, E. A. Vaughn, C. C. Fain, Robert L. Cross, K. N. Vickery, Lawrence W. Gahan, and Carolyn Briscoe. Those voting against the report were: M. J. Skove, Luther Baxter, and Thomas Lavender.

The date for the next meeting of the council is to be announced.

RHODES SCHOLARSHIP APPLICATIONS

All unmarried, male undergraduate students who may be interested in applying for a Rhodes Scholarship, tenable at the University of Oxford, should confer with the Dean of Undergraduate Studies, Dr. Claud B. Green, E-102 Martin Hall. Applications must be in the hands of the secretary of the state Committee of Selection not later than October 31, 1972.

Other conditions of eligibility are that the candidate must be between the ages of eighteen and twenty-four on October 1, 1972, that he must have at least Junior Standing by the time of application at some recognized degree-granting college or university, and that he receive the official endorsement of his college or university.

The combined payments to a Rhodes Scholar now amount to about L1500 a year.

Faculty and staff members are requested to encourage interested candidates to consult with Dean Green.

FACULTY RESEARCH COMMITTEE GRANT APPLICATIONS

Proposals for faculty research committee grants should be in the Office of University Research (107 Martin Hall) not later than November 1, 1972. Application forms may be secured in the Office of University Research. Only proposals using the Faculty Research Committee application form will be considered by the committee.

The Committee makes awards to new faculty members initiating research, to faculty members initiating research in a new area, and in areas where other sources of support are inadequate or non-existent.

AGRICULTURAL ENGINEERING

T. V. Wilson (Prof) was awarded the Doctor of Philosophy Degree in Agricultural Engineering following the 1972 summer session at North Carolina State University.

CIVIL ENGINEERING

Billy L. Edge (Assoc Prof) presented an invited lecture at the workshop on Environmental Modification by Dredge Activities at Morehead City, N.C. on Aug. 21-22. The title of the presentation was "Hydrodynamics of Spoil Disposal."

MINUTES OF THE MEETING OF THE FACULTY SENATE, JULY 11, 1972

The meeting was called to order at 4:17 p.m. by President Rogers. The minutes of the June meeting were approved as circulated. President Rogers recognized two new senators, Prof. J. E. Tuttle replacing Prof. Bernard Caffrey, and Prof. E. W. Winston replacing Prof. E . A. Freeman.

President Rogers introduced S. G. Nicholas, Vice President for Development, who presented a slide-sound discussion of the Clemson University Progressive Development Program. Vice President Nicholas encouraged faculty support for the Program, both financially and in seeking alumni support.

President Rogers reported that he had discussed the Student Grievance Committee with Walter Cox, Vice President for Student Affairs. Vice President Cox felt that in an emergency the President of the Student Senate could be contacted and the committee could act. In the future, student members would be appointed before the end of the spring semester so that students would have a full committee available to them during the summer.

In a report on meeting of the Athletic Council, President Rogers reported that the Council had voted to allow a basketball game with Purdue University during the week before exams in 1973. The team will also participate in a tournament in Pennsylvania. This approval will allow the basketball team to fulfill a previously signed contract.

In a discussion related to the fringe benefits available to faculty members, President Rogers was requested to ask the Personnel Office to prepare a complete list of fringe benefits and circulate this to the faculty. It was apparent that many faculty members are not aware of Clemson's fringe benefits.

President Rogers stated that there have been student complaints concerning professors not getting in summer school grades on time. In several instances, students were already signed up for another term of summer school before they knew their grades from the first term. President Rogers encouraged faculty members to turn their grades in as soon as possible. President Rogers also reported that a new dean, Dr. Luther P. Anderson, had been appointed in the College of Agricultural Sciences, and that the procedures for selection of administrators in the new faculty manual had been followed in the selection process.

Professor William Baron, representing the Welfare Committee, presented a pamphlet about life insurance through TIAA. The committee had drafted a letter containing information about the TIAA individual insurance plan. There was a

MINUTES OF THE MEETING OF THE FACULTY SENATE (Continued)

motion asking President Rogers to circulate this letter to the faculty through the Clemson Newsletter. After a second, the motion carried.

In discussion concerning student-faculty athletic facilities, it was requested that the Welfare Committee keep the Senate informed of developing policies related to use of these facilities.

President Rogers reported the following one-year appointments to University Committees:

Honors Program Council, E. P. Arnold, Languages
Computer Advisory Committee, W. E. Johnston, Experimental Statistics
Undergraduate Council, R. L. Cross, English
Library Committee, W. Baron, Civil Engineering
Poison Chemicals and Radioactive Material, F. B. Brown, Chemistry and Geology
Safety and Fire Prevention, E. A. Vaughn, Textiles

The meeting was adjourned at 6:00 p.m.

Absent from the meeting were: J. R. Hill, T. R. Adkins, J. A. Hash, W. E. Castro, A. R. Abernathy, W. F. Steirer, F. B. Brown and K. T. Wallenius.

MINUTES OF AUDIO-VISUAL COMMITTEE, JULY 25, 1972

The seventh meeting of the University Audio-Visual Committee was held in Room 108, Strode Tower. The following members of the committee were present: Revis Frye (filling the unexpired term of Mrs. Sarah Walker), Mike Hubbard, Mike Jutras, Sam Wang, and Mrs. Betty Watkins.

The minutes from the previous meeting on April 18th were distributed. Some suggestions and additions were made to the minutes which were then to be redistributed for final approval.

Chairman Jutras asked Harry Durham to report on space allocations with regard to the changes which had taken place in Agricultural Communications. Mr. Durham reported that people added to the staff as a result of the Agricultural Communications change would be housed in the basement of the Plant and Animal Science Building when renovation was complete.

Chairman Jutras called on Mrs. Betty Watkins' subcommittee on Centralizing audio-visual services for its report. The subcommittee recommended the University Communications Center establish and operate a centralized audio-visual equipment loan center which would cover a number of different functions

MINUTES OF AUDIO-VISUAL COMMITTEE (Continued)

specified in the report. The subcommittee also recommended that the Communications Center establish several satellite centers providing services to faculty members in their preparation of audio-visual instructional materials. After a considerable discussion, this recommendation was deleted from the overall subcommittee's report. Mrs. Watkins moved and Sam Wang seconded that the committee adopt the recommendations from the subcommittee on centralized audio-visual services as specified on page one of their report. The committee voted unanimously to adopt the report.

Sam Wang asked about a list for new faculty members covering the services provided by the University Communications Center. Mr. Durham indicated such a list exists but has not been distributed. He agreed to duplicate the list in sufficient quantities to distribute to all faculty members.

Chairman Jutras mentioned the availability of a new faculty manual.

The meeting was adjourned at 3:30 p.m.

PROPOSAL FROM SUB-COMMITTEE ON CENTRALIZED AUDIO-VISUAL SERVICES

This subcommittee is charged with the responsibility of investigating the feasibility of centralized audio-visual services. A verbal and written survey was made by the subcommittee. Results of this survey indicate strong support for centralized audio-visual services.

Recognizing there is obvious duplication of audio-visual equipment on the campus, the subcommittee submits this recommendation which should be initiated as soon as possible with full implementation for the 1973-74 year.

The University Communications Center establish and operate:
A centralized audio-visual equipment loan center which would:

1. Make available to a department on a loan basis audio-visual equipment which the department needs to supplement departmentally owned equipment.

2. Repair and service audio-visual equipment.

3. Keep records of equipment loaned and therefore assist departments in justifying the purchase of equipment.

4. Provide consulting services and recommend specifications for audio-visual equipment as such equipment is purchased by individual departments.

MINUTES OF AUDIO-VISUAL COMMITTEE (Continued)

5. Catalog all audio-visual equipment on campus and provide departments with this information.

6. Catalog and provide storage for films, filmstrips, audio tapes, and other software upon the recommendation of the AV Committee.

CHEMISTRY

Recent publications:

Frederick Lindstrom (Prof) and Carl W. Milligan (former Grad Stu), "The Determination of Calcium Using Glyoxal Bis(2-hydroxyanil) and its Derivatives," Anal. Chem. 44, 1822 (1972).

J. W. Huffman (Prof), "Attempted Duplication of the Methyl Shift in Eremophilane Biosynthesis," J. Org. Chem., 37, 2736 (1972).

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

Carl L. Dyer (Asst Prof) and Hermogenes Moreno (Instr) addressed The Carpet and Rug Institute Research Committee on August 4 in Fredericksburg, Va. They spoke on the development of econometric and forecasting models for the carpet industry.

J. L. Richardson (Assoc Prof) and Prof. Richard Brunson of the University of South Carolina conducted a Work Study Workshop at the University of South Carolina in August. This was sponsored by the South Carolina Higher Education Commission.

ENVIRONMENTAL SYSTEMS ENGINEERING

J. H. Austin (Prof) published a paper entitled, "Educational Systems for Plant Operators," in Water Research, vol. 6, pp 601-604, April/May 1972.

A. D. Carr (Visiting Prof) presented two papers entitled, "Velocity, Temperature and Turbulence Measurements in Air for Pipe Flow with Combined Free and Forced Convection" and "The Distortion of Turbulent Velocity and Temperature Profiles on Heating, for Mercury in a Vertical Pipe" at the 13th National Heat Transfer Conference in Denver, Aug. 6-9.

ENGINEERING RESEARCH

Dr. Stig Lyng, Head of the Inorganic Materials Division at the Central Institute for Industrial Research, Oslo,Norway, is taking a sabbatical with S. F. Hulbert (Assoc Dean for Eng Research) in the field of Biomaterials for the fall semester of the 1972-73 academic year.

HISTORY DEPARTMENT

John Y. LeBourgeois (Asst Prof) read a paper entitled, "The Love and Marriage of William Morris: a New Interpretation," before a meeting of the William Morris Society held in London at the Society for Industrial Artists on July 27.

INDUSTRIAL EDUCATION

J. Page Crouch (Assoc Prof) presented a multi media research report of the recently completed "Graphic Arts Inventory for Education" at the 47th annual conference of the International Graphic Arts Education Association held in Statesboro, Ga., Aug. 13-18. Dr. Crouch was assisted by David W. Dailey, graduate student in Industrial Education.

Dr. Crouch was also reappointed chairman of the "Industrial Arts Committee" of the IGAEA.

OFFICE OF INDUSTRIAL AND MUNICIPAL RELATIONS

A Seminar on "Plastic Design of Steel Structures" will be presented Sept. 28 at the Clemson House. The seminar is jointly sponsored by the Dept. of Civil Engineering, the South Carolina Technical Services Program of the State Development Board and the American Institute of Steel Construction.

The seminar chairman is Dr. R. E. Elling (Assoc Prof, Civil Engr & Engr Mech). Appearing on the program in addition to Dr. Elling will be H. W. Busching (Assoc Prof and Hd, Civil Engr), J. C. McCormac (Assoc Prof, Civil Engr), S. C. Anand (Assoc Prof, Civil Engr) and Robert O. Disque, New York, (Chief Engineer of AISC and author of text "Applied Plastic Design in Steel").

Additional information may be obtained from the Office of Industrial and Municipal Relations, 116 Riggs Hall, or from Dr. R. E. Elling, 318 Lowry Hall.

MATHEMATICAL SCIENCES

Frank M. Cholewinski (Prof) authored an article in the 25th issue of the Journal D'Analyse Mathematique. The paper was entitled, "Inversion of the Reduced Poisson-Hankel Transform." A co-author for this paper was Deborah T. Haimo.

K. T. Wallenius (Prof) has been appointed Visiting Lecturer for the 1972-73 academic year by the Committee of Presidents of the Biometric Society (ENAR and WNAR), the Institute of Mathematical Statistics and the American Statistical Association.

K. T. Wallenius (Prof) organized and chaired a session of invited papers on Data Analysis at the annual meeting of the American Statistical Association in Montreal, Aug. 14-17.

K. T. Wallenius (Prof) has been elected District 6 Representative to the Council of the American Statistical Association for a two-year term. This district encompasses Indiana, Kentucky, Tennessee, Virginia, North Carolina, South Carolina, Georgia, and Florida.

The Dept. of Mathematical Sciences has been awarded a $35,500 contract by the Office of Naval Research to continue work in the area of Applied Statistical Analysis. K. T. Wallenius (Prof) is the director of the project.

C. Bradley Russell (Assoc Prof) participated in a National Science Foundation Summer Institute for College Teachers in Model Building and Statistics at Rice University, Houston, Texas, June 19 -July 28.

Recent papers published by J. V. Brawley (Prof): "Equivalence Classes of Linear Mappings with Applications to Algebraic Cryptography, I" Duke Mathematical Journal. Vol. 39 (1972) 121-132 (with Jack Levine). "Equivalence Classes of Linear Mappings with Applications to Algebraic Cryptography, II" Duke Mathematical Journal, Vol. 39 (1972) 133-142 (with Jack Levine). "Equivalence Classes of Involuntary Mappings," Duke Mathematical Journal, Vol. 39 (1972) 211-217 (with Jack Levine).

TEXTILE DEPARTMENT

E. I. Stearns (Prof and Hd) gave a lecture entitled, "Color" to the Palmetto Section of the American Association of Textile Chemists and Colorists in Savannah, Ga., Aug. 11.

Dr. Donald W. Lyons (Assoc Prof Text & Mech Engr) and Dr. John D. Hatcher (Asst Prof Text) published a paper entitled, "Drying of Porous Medium With Internal Heat Generation," in the recent issue of the International Journal of Heat and Mass Transfer.

Dr. Donald W. Lyons (Assoc Prof Text & Mech Engr) was appointed to the Occupational Safety and Health Subcommittee of the Carolina's Branch of the Associated General Contractors of America.

TEXTILE DEPARTMENT (Continued)

R. H. Barker (Assoc Prof) presented two papers at the American Chemical Society's 164th National Meeting in New York, Aug. 27-Sept. 1 with J. E. Bostic, T. J. Rearden, and R. A. Strong (all former Grad Students). The papers presented were: "A Ph.D. Program in Textile Chemistry," and "Effect of Model Flame Retardants on the Flammability of Nylon and Polyester."

Dr. Barker also chaired a session in the Division of Cellulose, Wood and Fiber Chemistry.

POULTRY SCIENCE

Poultry Science staff members attended the annual meeting of the Poultry Science Association in Columbus, Ohio Aug. 5-11 and participated as follows:

David Wicker (NDEA fellow) presented a paper entitled, "Effect of Dietary Protein Level on Semen Volume, Concentration, Mortality and Vigor of the Male Turkey." The paper was co-authored by J. E. Jones (Assoc Prof) and B. D. Barnett (Prof and Hd).

K. A. Holleman (Assoc Prof) presented papers entitled, "Species Differences in Response to Poly Chlorinated Biphenyls" and "A Field Comparison of Caged Layer Housing Systems." The first was co-authored by B. D. Barnett and the second by J. F. Welter (Asst Prof).

D. E. Turk (Assoc Prof) presented a paper, "Diet and Egg Cholesterol Content," co-authored by B. D. Barnett.

B. D. Barnett served as a member of the Association Executive Committee and was elected general program chairman for 1973.

Papers by J. B. Cooper (Assoc Prof) were published in the most recent issue of Poultry Science as follows: "Performance of Broiler Breeders on Slats vs. Slat-Litter Floors," Vol. 51:1265-67 and "Effect of Light During Incubation on Hatchability of Turkey Eggs," Vol. 51:1105-08.

A paper, "Immunologic Response of Turkeys to an Avirulent Pasteurella multocida Vaccine in the Drinking Water," by B. W. Bierer (Prof) and W. T. Derieux (Vet II) was published in the most recent issue of Poultry Science, Vol. 51:1402-08.

PHYSICS

C. G. Shirley (former Grad Stu) and R. L. Chaplin (Prof) had a paper entitled "Evaluation of the Threshold Energy for Atomic Displacements in Titanium," in the March issue of Physical Review B.

J. C. Foster (Grad Stu) and J. R. Ray (Assoc Prof) had a paper published in the July issue of Journal of Mathematical Physics entitled, "A Tachyon Dust Metric in General Relativity."

J. R. Ray (Assoc Prof) attended the 1972 Banff Summer School on Relativity Astrophysics and Cosmology in Banff, Alberta, Canada, in August.

S. J. Rothman, N. L. Peterson, A. L. Laskar (Assoc Prof) and L. C. Robinson had a paper published in the Journal of Phys. Chem. Solids entitled, "The Temperature Dependence of the Isotope Effect for the Diffusion of NA+ in NaCL."

CALENDAR OF CAMPUS EVENTS

Sept.	15	Fri.		Cotillion Club - Caberet Dance.
Sept. Oct.	16- 10	Sat.- Tues.		Architecture Exhibit - "The New Eye in Chinese Painting" - Lee Hall Gallery.
Sept.	17	Sun.	2:00 p.m.	Soccer - The Citadel at Clemson.
Sept.	18	Mon.	8:00 p.m.	French Feature Film (English sub-titles) - Daniel Theatre.
Sept.	20	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Dining Hall.
Sept.	21	Thurs.	7:30 p.m.	Program: "Bewitching Brazil" - P&AS Auditorium.
Sept.	21	Thurs.		Soccer; round robbin; entries - Sept. 11-19.
Sept.	21	Thurs.		Cross Country meet; entries - Sept. 11-19.
Sept.	21	Thurs.		Tennis - men's doubles; meet; entries - Sept. 11-19.
				Tennis - women's doubles; single elimination; entries - Sept. 11-20.
Sept.	23	Sat.	8:30 p.m.	Varsity Football - Rice at Houston.
Sept.	25	Mon.	2:00 p.m.	JV Football - Duke at Clemson.
Sept.	25	Mon.	1:00 p.m.	Soccer at Appalachian State.

CALENDAR OF CAMPUS EVENTS Continued

Sept.	25	Mon.	8:00 p.m.	Itzhak Perlman, violinist - Littlejohn Coliseum.
Sept.	25	Mon.	9:05 - 11:15 a.m.	Dr. J.F. Reed of the Potash Institute of North America, Atlanta, Ga. - "Production, Marketing and Use of Potassium Fertilizers" - A-203 P&AS (Agronomy).
Sept.	25	Mon.		Horseshoes; round robbin; entries - Sept. 11-20.
Sept.	25	Mon.		Bowling; double elimination; entries - Sept. 11-20.
Sept.	26	Tues.		Foreign Language Plays - Una Noche de Primavera Sin Sueno (Spanish).
Sept.	27	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Dining Hall.
Sept.	27	Wed.	9:05 - 11:15 a.m.	Agronomy - Dr. G.G. Williams of the Tennessee Valley Authority, Muscle Shoals, Ala., "Production, Marketing and Use of Phosphate Fertilizer" - A-203 P&AS.
Sept.	28	Thurs.		Track - freshmen; meet; entries - Sept. 4-25.
Sept.	28	Fri.		Seminar on "Plastic Design of Steel Structures" at Clemson House.
Sept.	29	Fri.	3:00 p.m.	Soccer at Rollins.
Sept.	30	Sat.	2:30 p.m.	Varsity Football at Oklahoma.
Sept.	30	Sat.		Central Dance Association Concert - Littlejohn Coliseum.
Oct.	1	Sun.	2:00 p.m.	Soccer at South Florida.

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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 4 October 1, 1972

EDUCATIONAL RADIO ON THE AIR

Clemson University President Dr. R.C. Edwards participated in inaugural day programming September 3 of South Carolina Educational Radio Network station WEPR, Greenville. The new FM stereo station (90.1 on the FM dial) is owned and operated by the South Carolina ETV Commission.

Clemson University is the only satellite production center and currently is originating ten programs per week. Coordinating the new FM radio effort is Lily Hall, in association with Harry Durham, director of the University Communications Center.

The following programs are now on the air:

CAROLINA WEATHERVANE -- Agricultural weather information and crop recommendations, produced in cooperation with Alex Kish of the National Weather Service Office, with contributions from University Extension Service and Experiment Station personnel. (12:15 p.m. Monday - Friday)

FILM FIFTEEN -- Critical discussion of current movie releases by Vic Bost of the Office of Student Affairs and Ross Cornwell of the University Information Service. (Mondays, 8:15 p.m.)

MUSIC FROM THE MOUNTAINS -- Performance and commentary by Edith Card of the Music Department. (Tuesdays, 8:15 p.m.)

ENVIRONMENT '72 -- Reports on current environmental issues and research findings, produced in cooperation with the Environmental Systems Engineering Department. (Wednesdays, 8:15 p.m.)

POETRY TODAY -- Contemporary readings and commentary by Dr. Bob Hill of the English Department. (Thursdays, 8:15 p.m.)

FOOD FOR THOUGHT -- Tips on nutrition and health with Marie Hindman, associate professor of home economics.

Additional programming is being developed by the Political Science Department, the Music Department and WSBF-FM.

ORDER BASKETBALL TICKETS NOW

The Athletic Department urges all faculty and staff members who plan to order season basketball tickets to do so by October 15. Ticket information and application forms are available at Fike Recreation Center.

MONTROLL WILL ADDRESS PHYSICS COLLOQUIA

Dr. Elliott W. Montroll, Einstein Professor of Science, Rochester University will be visiting Clemson University during the period October 12-14.

Professor Montroll is well known for his outstanding contributions in the fields of Physics, Chemistry and Mathematics, including the first accurate calculation of the phonon spectrum of a crystal model and early work on the Ising model for a magnetic system. His major recent interests have been to apply his broad background in theoretical physics and mathematics to clarifying and improving the understanding of phenomena in biology, population studies, the social sciences, and operations research. He is recipient of a number of prizes and is the editor of Journal of Mathematical Physics.

During his stay at Clemson, he will be addressing the Physics Colloquia at 3:00 p.m., October 13 on "Dynamical Aspects of Population Growth Competition and Diffusion." He will also give a popular talk on "Quantitative Aspects of Social Phenomenon" at 8:00 p.m., October 13. In addition, he will be meeting the faculty and students informally.

THIRD ANNUAL READING CONFERENCE TO BE HELD OCTOBER 5-7

The Clemson University Reading Conference, last year attended by some 500 school teachers and supervisors from throughout the Southeast, will hold its third annual session here Thursday-Saturday, Oct. 5-7.

The conference is sponsored by the College of Education's department of elementary and secondary education. Conference director is Gordon W. Gray, associate professor and head of the Clemson University Reading Laboratory.

The conferences expose teachers to new ideas and innovations in reading to help them teach children with reading deficiencies. Educators say that early uncorrected reading problems are probably the main reasons why more than 52 per cent of the children who enter first grade in South Carolina fail to graduate from high school.

Prof. George D. Spache and Prof. Donald D. Durrell head a slate of 18 prominent guest speakers from seven states.

Spache, professor emeritus at the University of Florida, is past president of the International Reading Association (1958-59) and the National Reading Conference (1961-64). He is author of the "Spache Binocular Reading Test" and the popular textbooks "Good Reading for Poor Readers" and "The Art of Efficient Reading" (co-authored with Dr. Paul C. Berg, director of the Reading Clinic, University of South Carolina, and also a featured conference speaker).

Durrell, who is former dean of the College of Education at Boston University, is the author of several major publications, including "Speech to Print Phonics" and the "Durrell Reading Analysis." In 1932 he established the City of Boston's first reading clinic for elementary school pupils.

STANDING COMMITTEES OF THE UNIVERSITY 1972-73

1. Administration-Faculty-Student Council. The principal responsibility of this council is the consideration of areas of common concern and mutual interest to the student body, the faculty, and the administration for the benefit and improvement of the University community.

(Chairman to be elected)

A. Wood Rigsby (V-Pres for Exec Affairs, ex officio)		J. D. Fulton (V-Pres FacSen)	1973
E. H. McCarter (Bus&Fin)	1973	J. C. Fanning (Chm of Adm & Scholarship Comm of FacSen)	1973
Manning N. Lomax (StuAff)	1973	Student Senate Designee	1973
George M. Moore (Development)	1973	Student Senate Designee	1973
E. B. Rogers (Pres FacSen)	1973	Student Senate Designee	1973

2. Administrative Council. This council recommends business and non-academic personnel policy to the President.

M. A. Wilson (Chairman)

R. C. Edwards (President)	Trescott Hinton (Dir of Accounting)
Victor Hurst (V-Pres for AcadAff)	Jack N. Wilson (Dir of Purchasing)
W. T. Cox (V-Pres for StuAff)	John Gentry (Dir of Personnel)
A. W. Rigsby (V-Pres for ExecAff)	Henry Hill (Dir of Auxilliary Ent)
E. B. Rogers (Pres of FacSen)	Roy Rochester (Director of PhysPlant)
E. H. McCarter (Financial Analyst)	Melvin E. Barnette (Budget Director)
Clyde E. Woodall (Admimistrative Specialist)	

3. Archives Committee. This committee advises on all policies concerning the University Archives.

R. S. Lambert (Chairman)

Joseph Arbena (Hist)	1973	Sophie Sullivan (FacSen)	1973
Martin Slann (PolSci)	1974	J. W. G. Gourlay (Dir of Library, ex officio)	
Richard Saunders (Hist)	1975	Mary Janet McNair (Undergrad Stu)	1973

STANDING COMMITTEES OF THE UNIVERSITY 1972-73 (continued)

4. Athletic Council. This council recommends all policy concerning intercollegiate athletics to the Vice President for Student Affairs.

K. N. Vickery (Chairman)

W. J. Lanham (AgEcon, Sec)	1973	T.C. Breazeale, Jr. (Pres of Alumni Association)	
R. W. Moorman (EngrMech)	1973		
J. V. Reel, Jr. (Hist)	1974	George H. Aull, Jr. (Immediate Past Pres of Alumni Assn)	
J. L. Young (Arch)	1974		
J. V. Brawley, Jr. (Math)	1975	Lewis F. Holmes (President of IPTAY)	
T. D. Efland (Text)	1975		
E. B. Rogers (Pres FacSen)	1973	T.C. Atkinson, Jr. (Immediate Past President of IPTAY)	
Thomas Lavender (Pres StuSen)	1973		
		President of Block "C" Club	

5. Audio-Visual Committee. This committee advises the Vice President for Development on the audio-visual needs and programs of the University.

(Chairman to be elected)

T. E. Douglass (Engl)	1973	J. C. Hubbard (Text)	1975
Opal Hipps (Nurs)	1973	M. W. Jutras (Agron)	1975
Samuel Wang (VisStu)	1973	Betty P. Watkins (VocEduc)	1975
Joe F. Allen (Chem)	1974	Harry Durham (Dir of CommCen, ex officio)	
W. F. Beckwith (ChemEngr & FacSen)	1974	James Veitenheimer (GradStu)	1973
Revis M. Frye (RPA)	1974	Student Senate Designee	1973

6. Computer Advisory Committee. This committee advises the Dean of Graduate Studies and University Research on needs of the Computer Center, Computer Center policies, and on such other matters as may be referred to it by the faculty, administration, or students.

(Chairman to be elected)

John S. Lytle (AgEcon&RurSoc)	1973	M. C. Palmer (CompCenter, ex officio)	
Jack L. Clark (BldgSci)	1973	Clyde Woodall (Bus & Fin)	1975
J. Page Crouch (IndEduc)	1973	J. L. Strom (Development)	1975
Gordon Howard (RPA)	1974	K. N. Vickery (Stu Affairs)	1975
M. L. Wolla (Elec&CompEngr)	1974	William G. Grayson (GradStu)	1973
R. F. Zant (IndMgmt)	1974	Lois M. Lundberg (GradStu)	1973
Ronald J. Knapp (PolSci & Soc)	1975	Philip B. Ross, Jr. (UndergradStu)	1973
J. C. Peck (Math)	1975	Walter E. Johnston (FacSen)	1973
Susan Rockwell (Nurs)	1975		

STANDING COMMITTEES OF THE UNIVERSITY 1972-73 (continued)

7. Educational Council. This council recommends academic, research, and extension policy to the President.

Robert C. Edwards (Chairman)

Victor Hurst (Academic Affairs)
M. A. Wilson (Business & Finance)
W. T. Cox (Student Affairs)
A. W. Rigsby (Executive Affairs, Sec)
S. G. Nicholas (Development)
C. B. Green (Undergrad Studies)
A. E. Schwartz (Grad Studies & University Research)
S. M. Willis (University Extension)
K. N. Vickery (Adm & Reg)
J. W. G. Gourlay (Library)
E. B. Rogers (Faculty Senate)
L. P. Anderson (Agriculture)
H. E. McClure (Architecture)
H. F. Landrith (Education)
L. G. Rich (Engineering)
W. H. D. McGregor (For & Rec Res)
W. D. Trevillian (IM & TS)
H. M. Cox (Liberal Arts)
G. Labecki (Nursing)
H. E. Vogel (Phys/Math/Biol Sciences)
Melvin C. Long (Dir of Public Relations, ex officio)

8. Ethics and Religion Committee. This committee recommends policies to the President concerning the relationship between the student body and campus and community religious organizations.

C. E. Raynal (Chairman)

W. E. Copenhaver
T. C. Davis
Thomas Murphey
H. R. Reynolds
Luke B. Smith
W. T. Cox (V-Pres for Student Affairs)
Victor Hurst (V-Pres for Academic Affairs)
B. E. Trent (Director of YMCA)
David W. Stauton (Undergrad Student) 1973
George H. Galloway (Undergrad Student) 1973

9. Extension Council. This council advises the Dean of University Extension on all policies and regulations pertaining to the total University Extension program.

S. M. Willis (Chairman, ex officio)

Harriett Holman (Engl) 1973
S. M. Lukawecki (Math) 1973
Mary Ann Teklits (Nurs) 1973
George vonTungeln (AgEcon) 1974
James R. Washburn (Arch) 1974
M. A. Packer (Educ Serv) 1974
N. R. Bauld (EM & FacSen) 1975
George D. Kessler (For) 1975
F. T. Simon (Text) 1975
T. B. Tillman, Jr. (President, Extension Senate)
C. W. Ackerman (President, Extension Specialists Assn)
Carolyn Meares (President, Extension Home Economists'Association)
J. H. Evans (President, Extension County Agents' Association)

STANDING COMMITTEES OF THE UNIVERSITY 1972-73 (continued)

10. Faculty Research Committee. This committee awards the funds allocated for faculty research to faculty members on the basis of proposals received from the faculty. Grant applications should be directed to the Assistant Dean of University Research.

R. W. Henningson (Chairman)

Earl Carpenter (AgEduc)	1973	D. W. Lyons (Text)	1974
C. B. Caffrey (Psych)	1973	George Means (Arch)	1975
Rose Godbout (Nurs & FacSen)	1973	O. J. Jacobus (Chem&Geol)	1975
C. L. Lane (For)	1973	M. A. Wilson (Bus & Fin)	
C. C. Fain (CrEngr)	1974	Student Senate Designee	1973
D. M. Hendricks (FoodSci)	1974	Student Senate Designee	1973

11. Fine Arts Series Committee. This committee plans, coordinates, and publicizes the annual program of University concerts, films, lectures, plays, and art exhibits.

J. H. Butler (Chairman)

J. J. McLaughlin (Engl)	1973	W. B. Barlage (ChemE)	1975
G. E. Howard (RPA)	1973	J. C. Hubbard (Text)	1975
Mary Ann Kelly (Nurs)	1973	W. E. West (IndEduc & FacSen)	1975
B. D. Barnett (PoulSci)	1974	H. M. Cox (ex officio)	
James Dalton (Arch)	1974	Student Senate Designee	1973
M. C. Palmer (Math)	1974	Student Senate Designee	1973
		Student Senate Sesignee	1973

12. Graduate Council. All policies and regulations affecting graduate curricula and requirements leading to graduate credits, certification, and degrees shall be approved by this council and recommended to the Dean of the University.

A. E. Schwartz (Chairman, ex officio)

R. M. Allen (For)	1973	G. C. Means (Arch)	1974
C. W. Bolen (Hist)	1973	B. C. Dysart (ESE)	1975
J. V. Brawley (Math)	1973	H. H. Macaulay (Econ)	1975
N. D. Camper (PlantPath & FacSen)	1974	Henry R. Mushinsky (Grad Stu)	1973
C. R. Freeze (Educ)	1974	Leslie W. Brusse (Grad Stu)	1973

(Graduate Council Alternates on next page)

STANDING COMMITTEES OF THE UNIVERSITY 1972-73 (continued)

Graduate Council Alternates

D. W. Lyons (Text)	1973	Peter Lee (Arch)	1975
S. A. Gauthreaux (Zool)	1974	Jerry R. Lambert (AgEngr)	1975
John Idol (Engl)	1974	J. E. Matthews (Elem&Sec)	1975
T. E. Wooten (For)	1974	B. L. Edge (CivilEngr)	1976

13. Honors Program Council. This council recommends policy, including curricula and admission standards, concerning the Honors Program to the Dean of Undergraduate Studies.

W. C. Godley (Chairman)

B. E. Gilliland (EE & CompE)	1973	W. C. Whitten (Econ)	1975
Elizabeth Hall (Nurs)	1973	J. H. Adair (Elem&Sec)	1975
J. L. Stevenson (RPA)	1973	C. B. Green	
P. B. Burt (Physics)	1974	K. N. Vickery	
J. D. Maxwell (Agron & Soils)	1974	Kaye Wyatt Brown (HPC Student)	1973
Pat Wannamaker (Lang)	1974	Geo. O. Halstead, Jr. (HPC Student)	1973
Arnold Phillips (Arch)	1975	Edwin P. Arnold (FacSen)	1973

14. Library Committee. This committee advises the Director of the Library on the determination of the needs of the library, the formation of library policies, and on such other matters as may be referred to it by the Director of the Library.

R. E. Knowland (Arch, Chairman) 1973

R. J. Calhoun (Engl)	1973	Opal Hipps (Nurs)	1975
R. E. Shoenike (For)	1973	Ursula Holahan (Ext)	1975
J. M. Wannamaker (IM)	1973	J.W.G. Gourlay (Library, ex officio)	
W. E. Bachop (Zool)	1974	William Baron (FacSen)	1973
Elizabeth Galloway (Educ)	1974	Joseph Hutchinson (Undergrad Student)	1973
D. B. Stafford (CE)	1974	Pamela L. Smith (Grad Stu)	1973

STANDING COMMITTEES OF THE UNIVERSITY 1972-73 (continued)

15. Patent Committee. This committee makes recommendations to the President concerning all University patent matters in accord with the Patent Policy as printed in the Faculty Manual.

M. A. Wilson (Chairman)

C. E. Hood (AgEngr)	1973	Melvin Barnette (Bus&Fin, ex officio)	
E. B. Rogers (FacSen)	1973	T. D. Efland (Text, ex officio)	
W. W. Coffeen (CrEngr)	1974	O. B. Garrison (ExpSta, ex officio)	
E. F. Coxe (ME)	1974	S. G. Nicholas (Dev, ex officio)	
R. D. Hatcher (Chem&Geol)	1975	George O. Halstead, Jr. (Undergrad Student)	1973

16. Planning Council. This council advises the Vice President for Development on plans and proposals pertaining to the development of programs for the enhancement of the academic and cultural life of the University community, including, but not limited to, the physical facilities required for these programs.

S. G. Nicholas (Chairman, ex officio)

T. H. Garner (AgEngr)	1973	Elizabeth Hall (Nurs)	1975
Robert Eflin (Arch)	1973	Averett S. Tombes (Zool)	1975
James Matthews (Elem&Sec)	1973	E. H. McCarter (Bus&Fin)	1975
D. W. Bradbury (ME)	1974	E. B. Rogers (FacSen)	1973
T. E. Wooten (For)	1974	Samuel F. Crews (President of Student Body)	1973
J. A. Turner (IM)	1974		
Corinne Sawyer (Engl)	1975	Thomas Lavender (President of Student Senate)	1973

17. Poisonous Chemicals and Radioactive Materials Committee. This committee advises the President through the University Safety Coordinator and other appropriate officials on policies concerning the use and disposal of poisonous chemicals and radioactive materials.

R. W. Henningson (Chairman)

N. R. Page (AgChemServ)	1973	J. W. Hall (ChemE)	1975
W. K. Willard (Zool)	1973	W. E. Berry (Univ. Safety Coord)	
Henry Polk (Chem)	1974	Roy Rochester (Dir. of Phys. Plant)	
Donald E. Turk (PoulSci)	1974	Farrell B. Brown (FacSen)	1973
J. J. Porter (TexChem)	1975	Russell P. Bridges (Undergrad Student)	1973
		E. Dendy Sloan (Grad Student)	1973

October 1, 1972

STANDING COMMITTEES OF THE UNIVERSITY 1972-73 (continued)

18. Safety and Fire Prevention Committee. This committee advises the President through the University Safety Coordinator and other appropriate officials on safety policies and programs.

Everett Laitala (Chairman)

A. D. Lewis (ME)	1973	W. E. Berry (UnivSafetyCoord)	
J. A. Gilreath (Phys)	1974	Roy Rochester (Dir of PhysPlant)	
E. H. McCarter (Bus&Fin)	1974	J. E. Hair (Dir of Student Health Services)	
J. A. Stanley (PhysPlant)	1974	H. C. McClellan (Dir of Athletics)	
J. R. Salley (Chem&Geol)	1975	Conrad K. Shuler (UndergradStu)	1973
E. A. Vaughn (FacSen)	1973	Michael Best (GradStudent)	1973

19. Schedule Committee. This committee develops the master schedule of courses taught at the University.

K. N. Vickery (Chairman, ex officio)

H. D. Adams (Hist)	H. G. Lefort (CrE)
G. W. Anderson (Zool)	W. R. Mattox (Adm&Reg)
R. P. Ashworth (Bot)	C. M. McGee (Engl)
D. W. Bradbury (ME)	C. M. McHugh (EngrServ)
L. H. Brown (Arch)	R. F. Nowack (EM)
J. H. Couch (IE)	E. B. Rogers (AgEngr)
B. M. Cool (For & FacSen)	J. R. Salley (Chem&Geol)
C. C. Davis (IM)	J. H. Steed (USA)
R. C. Grant (USAF)	R. C. Turner (Phys)
R. C. Harshman (ChE)	J. V. Walters (Text)
J. Alex Hash (AgEduc)	Student Senate Designee 1973
Susan Rockwell (Nurs)	Student Senate Designee 1973
John LaGrone (Math)	

STANDING COMMITTEES OF THE UNIVERSITY 1972-73 (continued)

20. Scholarships and Awards Committee. This committee selects students for University scholarships and awards. It also has the responsibility for planning and coordinating the annual University Honors and Awards Day.

W. C. Godley (Chairman)

N. R. Bauld (EM)	1973	Claudia Blanford (Nurs)	1975
R. H. Hunter (Arch)	1973	P. Alston Steiner (Physics)	1975
J. T. Lazar (DySci)	1973	K. N. Vickery (Dean of Adm&Reg)	
J. R. Warner (For)	1973	G. E. Coakley (Asst Dean of Students)	
H. E. Morgan, Jr. (IndEduc)	1974	Susan Delony (Asst Dean of Students)	
W. C. Whitten (Econ)	1974	A. M. Bloss (Dir Financial Aid)	
A. R. Recoulley (Engl & FacSen)	1975	Frederick W. Andrea (Phi Eta Sigma)	1973
		Nelwyn L. Stone (Phi Kappa Phi)	1973

21. Traffic & Parking Committee. This committee advises the Vice President for Business and Finance on all matters concerning traffic and parking.

E. H. McCarter (Chairman)

Rose Godbout (Nurs & FacSen)	1973	J. L. Strom (Dir of Planning & Corporate Relations)	
B. K. Webb (AgEngr)	1975	Robert Eflin (Campus Master Planner)	
John C. Newton (StuAff)		Robert D. Drake (Undergrad Student)	1973
Jack W. Weeden (Security)		Wayne E. Billon (Grad Student)	1973

22. Undergraduate Council. All policies and regulations affecting undergraduate curricula and requirements leading to undergraduate credits and degrees shall be approved by this council and recommended to the Dean of the University.

C. B. Green (Chairman, ex officio)

R. W. Gilchrist (E&CE)	1973	L. W. Baxter (PlPath&Physiol)	1975
L. W. Gahan (RPA)	1973	Lamar Brown (Arch)	1975
C. R. Smith (IM)	1973	Carolyn Briscoe (Elem&Sec)	1975
Jerome Reel (Hist)	1974	K. N. Vickery (Adm&Reg, ex officio)	
Arline Duvall (Nurs)	1974	Robert L. Cross (FacSen)	1973
Malcolm J. Skove (Physics)	1974	Student Senate Designee	1973
		Student Senate Designee	1973

(Undergraduate Council Alternates on next page)

October 1, 1972

STANDING COMMITTEES OF THE UNIVERSITY 1972-73 (continued)

Undergraduate Council Alternates

C. C. Fain (CrE)	1974	J. C. Fanning (Chem&Geol)	1975
W. A. Shain (For)	1974	G. R. Craddock (Agron&Soils)	1976
E. A. Vaughn (Text)	1974	Peter Lee (Arch)	1976
R. J. Calhoun (Engl)	1975	John H. Rogers (AgEduc)	1976
Susan Rockwell (Nurs)	1975		

CALENDAR OF CAMPUS EVENTS

Oct.	1	Sun.	2:00 p.m.	Soccer at South Florida.
Oct.	2	Mon.	8:00 p.m.	Archibald C. Rogers, FAIA Past President of the American Institute of Architects and current chairman of the AIA Task Force on National Policy will be the Clemson Architectural Foundation's guest speaker. He will speak on National Growth Policy-Lee Hall Aud.
Oct.	4	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Dining Hall.
Oct.	4	Wed.	2:00 p.m.	CU Speakers Bureau - Pierre Salinger - Tillman Aud.
Oct.	5-	Thurs.-		The third annual Clemson Reading "Teaching Every
Oct.	7	Sat.		Child to Read" conference.
Oct.	5	Thurs.	8:00 p.m.	Graduate wives meeting - YMCA.
Oct.	5	Thurs.		Track - upper-classmen; meet; entries - Sept. 4-25.
Oct.	5	Thurs.	3:45 p.m.	Clemson University Woman's Club - "To Lib or Not to Lib" -- Clemson House.
Oct.	5	Thurs.	4:00 p.m.	Physics Colloquium - Dr. John R. Manning, Chief, Metal Physics Division, National Bureau of Standards - "Diffusion Kinetics in Crystalline Solids" - 101 Kinard Lab.
Oct.	6-	Fri.		Soccer - Emory Invitational Tournament in Atlanta, Ga.
Oct.	7	Sat.		
Oct.	6	Fri.		Dental Aptitude Test.
Oct.	7	Sat.	2:00 p.m.	Varsity Football at Georgia Tech.
Oct.	7	Sat.		Medical College Admission Test.
Oct.	7-	Sat.-		Women's Open Fencing Tournament - Littlejohn Coliseum.
Oct.	8	Sun.		

CALENDAR OF CAMPUS EVENTS Continued

Oct.	8	Sun.	4:00 p.m.	I - Chamber Music Series 1972-73 Season - Joseph E. Jackson, tenor - Tillman Hall Auditorium - free.
Oct.	9	Mon.	2:00 p.m.	JV Football at Georgia.
Oct.	9	Mon.	8:00 p.m.	German Feature Film (English sub-titles)-Daniel Theatre.
Oct.	10	Tues.	4:00 and 8:00 p.m.	Oedipus the King - History Film Series - Daniel Aud.
Oct.	11	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Dining Hall.
Oct.	12	Thurs.		Track - championship; meet; entries - Sept. 4-25.
Oct.	12	Thurs.		Softball - interfraternity; double elimination; entries - Sept. 28-Oct. 6.
Oct.	12	Thurs.	4:00 p.m.	Nutrition Seminar - Theodore M. Bayless, M.D., Johns Hopkins University, "Lactose (Milk) Intolerance in Humans "- A-101 P&AS.
Oct.	12	Thurs.	8:00 p.m.	Theodore M. Bayless, M.D.-"Social and Political Implications of Lactose (Milk) Intolerance in Man" - P&AS Auditorium.
Oct. - Nov.	13- 5	Fri.- Sun.		Architecture exhibit - "Figure in Landscape" - Lee Hall Gallery.
Oct. - Oct.	13- 15	Fri.- Sun.		Clemson University's National Advisory Board for Biomaterials Research and Educational Programs (College of Engineering).
Oct.	13	Fri.	3:00 p.m.	Physics Colloquia, Dr. Elliott W. Montroll of Rochester University, "Dynamical Aspects of Population Growth Competition and Diffusion" - Room 101 Kinard Laboratory of Physics.
Oct.	13	Fri.	8:00 p.m.	Dr. Montroll, "Quantitative Aspects of Social Phenomenon" - Lowry Hall Aud.
Oct.	14	Sat.	1:30 p.m.	Varsity Football - Duke at Clemson.
Oct.	14	Sat.		Graduate School Foreign Language Test.
Oct.	15	Sun.	2:00 p.m.	Soccer - N.C. State at Clemson.

Enrollment, 1963-1972

Clemson University Summer Sessions

Main Campus

Summer Sessions	First	Second	Total
1963	1347	1007	2354
1964	1533	1202	2735
1965	1833	1383	3216
1966	1803	1736	3539
1967	1974	2006	3980
1968	2435	2385	4820
1969	2371	2101	4472
1970	2319	2109	4428
1971	2400	2292	4692
1972	2779	2453	5232

Greenville Campus

1967	189
1968	139
1969	118
1970	146
1971	112
1972	119

Sumter Campus

1967	94
1968	107
1969	100
1970	60
1971	85
1972	87

Off-Campus Courses

1969	183
1970	424
1971	536
1972	769

Total for Main Campus, Greenville Campus, Sumter Campus, and Off-Campus

1967	4263
1968	5066
1969	4873
1970	5058
1971	5425
1972	6207

	Enrollment of New Students			Enrollment of Graduate Students		
Summer Sessions	First	Second	Total	First	Second	Total
1963	104	46	150	144	85	229
1964	170	110	280	267	150	417
1965	217	201	418	298	188	486
1966	73	285	358	324	372	696
1967	21	274	295	342	628	970
1968	36	256	292	500	778	1278
1969	34	213	247	516	621	1137
1970	94	325	419	633	719	1352
1971	90	338	428	841	851	1692
1972	42	130	172	1076	1071	2147

FACULTY SENATE ROSTER 1972 - 1973
(as of September, 1972)

Name	Academic Unit	Campus Address	Phone	Term Ends
Agricultural Sciences (9)				
N. D. Camper	Plt. Path. & Phys.	B-20 Long	3451	1973
E. B. Rogers	Ag. Engr.	128 Ag. Engr.	3251	1973
B. J. Skelton	Horticulture	169 P&AS	3406	1973
J. R. Hill	Animal Science	214 P&AS	3427	1974
W. E. Johnston	Exp. Statistics	F-148 P&AS	3028	1974
T. E. Skelton	Ent. & Econ. Zool.	301 Long	3111	1974
V. D. Carmack	Home Economics	240 P&AS	3268	1975
T. R. Adkins, Jr.	Ent. & Econ. Zool.	B-28 Long	3111	1975
D. O. Ezell	Horticulture	159 P&AS	3403	1975
Architecture (1)				
V. S. Hodges	Architecture	115 Lee	3081	1973
Education (2)				
J. A. Hash	Ag. Education	17 Tillman	3300	1973
W. E. West	Ind. Education	200B Freeman	3447	1974
Engineering (5)				
W. E. Castro	Engr. Mech.	314 Lowry	3371	1973
A. R. Abernathy	Env. Sys. Engr.	501-4 Rhodes	3276	1974
N R. Bauld	Engr. Mech.	214 Lowry	3371	1974
W. F. Beckwith	Chem. Engr.	205 Earle	3055	1974
W. Baron	Civil Engr.	302 Lowry	3002	1975
Forest & Recreation Resources (1)				
B. M. Cool	Forestry	155 P&AS	3303	1973
Industrial Management & Textile Science (2)				
E. A. Vaughn	Textiles	308 Sirrine	3498	1973
R. D. Shannon	Economics	209A Sirrine	3497	1974
Liberal Arts				
J. L. McCollough	Philosophy	610 Strode	3139	1973
R. A. Rimkus	Political Sci.	503 Strode	3187	1973
W. F. Steirer, Jr.	History	220 Hardin	3153	1974
R. L. Cross	English	401 Strode	3155	1975
E. P. Arnold	Languages	515 Strode	3132	1975
A. L. Recoulley	English	807 Strode	3047	1975
A. H. Holt	English	804 Strode	3289	1975
Library (1)				
S. Sullivan	Cataloguing	Library	3027	1974
Nursing (1)				
R. A. Godbout	Nursing	713 Strode	3076	1974
Physical, Mathematical & Biological Sciences (6)				
J. C. Fanning	Chemistry	130 Brackett	3220	1973
J. D. Fulton	Mathematics	0-17 Martin	3434	1974
M. D. Sherrill	Physics	103 Kinard	3417	1974
C. R. Dillon	Botany	101 Kinard Annex	3452	1975
P. T. Holmes	Mathematics	0-329 Martin	3434	1975
K. T. Wallenius	Mathematics	0-113 Martin	3434	1975

MINUTES OF THE MEETING OF FACULTY SENATE, AUGUST 22, 1972

The meeting was called to order at 4:19 P.M. by President Rogers. The minutes of the July meeting were approved as circulated. President Rogers recognized five new senators; Professor Ruth Hays, temporary replacement for F. B. Brown, Professor E. W. King, temporary replacement for T. R. Adkins, Professor K. E. Carpenter, alternate for Vernon Hodges, Professor R. A. Rimkus, replacing E. A. Freeman, and Professor J. L. McCollough, replacing B. C. Caffrey.

President Rogers announced that Sophia Sullivan had been appointed to the Senate's representative on the Archives Committee and that E. M. Lander will represent the faculty on any future committee dealing with policies on the use of intramural facilities. President Rogers reported that Vice President Cox had stated that the policy in regards to control and use of Fike Recreation Center had as yet not been established, and that the faculty would be involved when it was. In regards to a list of University fringe benefits, President Rogers reported that all benefits were included in the new Faculty Manual, and that he encouraged faculty members to read the manual. The Senate was informed that in regards to the Full Professor requirement for Alumni Professorships, Vice President Nicholas stated that all criteria were set by the academic administration.

A letter of resignation from the Senate had been received by President Rogers from Professor F. B. Brown. In regards to a question concerning an advisory committee for the appointing of Professor Brown as assistant to the Dean of Graduate Studies and University Research, President Rogers reported that a committee was not necessary since this was a staff position and not a line position and would not have authority over other professional employees.

President Rogers expressed appreciation to Professors Hash, Holt, and Cross for their assistance with new faculty orientation.

Concerning questions about the policy prohibiting Extension faculty members from engaging in political activity, President Rogers presented information in regards to a federal court ruling declaring the Hatch Act restriction on political activity of federal employees as unconstitutional. This was referred to the policy committee for its recommendation.

Concerning recent questions concerning tenure policies, President Rogers reported that Vice President Hurst is in the process of developing a position paper on tenure. President Rogers reported that Vice President Hurst had informed him that our budget this year was approximately 3 1/2 million dollars below requests. Therefore, all equipment money had been cut from the budget, and travel allocations were held at last year's level. After drastically trimming budget requests, there was an approximate 5 1/2 percent increase in the salary

MINUTES OF THE MEETING OF FACULTY SENATE, AUGUST 22, 1972 (Continued)

budget. In response to several questions President Rogers stated that guidelines from the General Assembly allowed certain cost-of-living increases, with some discretionary prerogatives allowed to department heads.

The following motion was presented by Professor J. C. Fanning:

"Whereas, since there is some concern among faculty about the 1972-73 budget for the University,

Be it resolved that the president of the Faculty Senate appoint an ad hoc committee to obtain pertinent information on the 1972-73 University budget and report its findings to the Senate at the September meeting."

The motion was seconded and passed unanimously.

The committee appointed by President Rogers is R. D. Shannon, Chairman, M. Sherrill and W. F. Beckwith.

Professor West, on behalf of the Welfare Committee, moved that the President of the Faculty Senate write a letter to the Athletic Council expressing reactions of the Senate in regards to priorities on tickets to intercollegiate athletic events. The motion was seconded and passed unanimously. A copy of the letter is attached.

Professor West also informed the Senate that he had talked to Vice President Hurst concerning the procedures for selecting Alumni Professors. The procedures were presented as follows:

A. Written Policy as given by Dean Victor Hurst:

POLICY FOR THE APPOINTMENT OF AN ALUMNI PROFESSOR

1. An Alumni Professor will be selected primarily on the basis of his effectiveness as a teacher. He will, at the time of his appointment to Alumni Professor, hold the rank of Professor.

2. Based on information obtained from the schools and colleges, the selection of an Alumni Professor will be made by the Academic Deans convened for this purpose.

3. Once a selection has been made by the Academic Deans, this information will be conveyed by the University Dean to the President of the University for his final approval. The President will inform the Professor of his appointment and will also inform the Clemson Alumni Association.

MINUTES OF THE MEETING OF FACULTY SENATE, AUGUST 22, 1972 (Continued)

B. Informal Policy as reported by Dean Hurst:

1. College from which the Alumni Professor will be appointed is determined by the University Dean.

2. Hereafter faculty involvement in the nomination of an alumni professor will be requested. The involvement to be patterned after existing policy relative to the selection of academic administrators.

The meeting was adjourned at 5:45 P.M.

Absent from the meeting: E. A. Vaughan and P. T. Holmes.

FACULTY RESEARCH COMMITTEE GRANT APPLICATIONS

Proposals for faculty research committee grants should be in the Office of University Research (107 Martin Hall) not later than November 1, 1972. Application forms may be secured in the Office of University Research. Only proposals using the Faculty Research Committee application form will be considered by the committee.

The committee makes awards to new faculty members initiating research, to faculty members initiating research in a new area, and in areas where other sources of support are inadequate or non-existent.

NOTICE TO UNIVERSITY FACULTY

The Welfare Committee of the Faculty Senate would like to make the faculty aware of a number of individual life insurance programs available through the Teachers Insurance and Annuity Association. These programs, including term, family income, home protection, whole life and endowment insurance, are available to all employees of Clemson. Policies are obtainable on an individual basis. Information may be obtained by writing to:

Teachers Insurance and Annuity Association
730 Third Avenue
New York, New York 10017

A brochure describing the programs that are available and the present costs is available upon request.

GRADUATE COUNCIL MINUTES, AUGUST 4, 1972

The meeting of the Graduate Council was called to order by Dean Schwartz. Members present were: Dr. Allen, Dr. Camper, Dr. Freeze, Professor Means, Dr. Gauthreaux (alternate for Dr. Brawley), and Dr. Dysart.

Dean Schwartz introduced Dr. F. B. Brown, new Assistant to the Dean, to the Council members.

The Council considered a request from Mr. Thomas Gettys Corcoran, graduate student in the Department of Industrial Management, that he be allowed to receive a Master of Science degree at the August 5, 1972 graduation. Mr. Corcoran's record has incompletes for which he has no make-up grades. After reviewing and discussing Mr. Corcoran's records, Professor Means made a motion that Mr. Corcoran's request for graduation be denied at this time on the basis that he has two outstanding incompletes in his graduate program, and that at such time when his department head, major advisor, and advisory committee deem that the incompletes have been made up properly, that the grades for the I's be turned in through the normal channels. The motion was seconded and approved unanimously.

Dr. Camper made the following motion: That once a grade of incomplete has been submitted it may not revert to a grade of WP. The Graduate Council terms this as misuse of the grade WP. The motion was seconded and carried unanimously.

Lists with candidates for Masters and PhD degrees to be received in August were distributed for discussion and approval. Names of those ineligible to receive degrees at this time had been stricken from the lists per departmental requests. All other candidates were approved with the exception of Mr. Corcoran.

The next meeting of the Graduate Council will be held Friday, September 8, 1972 at 3:00 P.M. in Room 103 Martin Hall.

A motion was made to adjourn, seconded and passed.

GRADUATE FELLOWSHIPS FOR BLACK AMERICANS ANNOUNCED

The Graduate School wishes to announce the availability of post-graduate National Fellowship Funds made possible by the Ford Foundation and under the auspices of the Council of Southern Universities. These fellowships are available on a competitive basis to black faculty members, graduate students, college seniors and other black Americans who can give evidence of intent to enter into academic careers in the United States. In addition the fellowships are limited to persons who wish to study full time for the Ph.D. degree.

While the Graduate School does not make the awards, information can be obtained from that office or by writing directly to: The National Fellowship Fund
795 Peachtree Street, N.E., Suite 484
Atlanta, Georgia 30308

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

J. C. Hite (Assoc Prof) presented a discussion paper, Agricultural Productivity, Technology and Environmental Quality," at the American Agricultural Economics Association meeting in Gainesville, Fla., Aug. 21-23.

W. J. Lanham (Prof and Hd) presented a discussion paper, "Realistic Policies for Creating Jobs and Income in Rural America," at the American Agricultural Economics Association meeting in Gainesville, Fla., Aug. 21-23.

CHEMICAL ENGINEERING

F. C. Alley (Prof) has been selected to serve as a scientific and technical merit project reviewer for the Environmental Protection Agency.

F. C. Alley will participate in a Workshop on the Implementation of an Air Pollution Permit System that will be held in Atlanta, Oct. 3-4 for Pollution Control Agencies in EPA Region IV.

W. B. Barlage (Prof) and J. A. Caskey (VPI) presented a paper entitled "Equilibrium Solubility and Diffusion Coefficients of Carbon Dioxide in Aqueous Carboxymethylcellulose Solutions," at the 72nd National Meeting of the American Institute of Chemical Engineers in St. Louis, Mo., May 21-24.

W. B. Barlage has received $16,700 from the National Science Foundation for the first year of a two-year continuation grant to study, "The Effect of Ionic Conditions on Gas Absorption in Various Solutions of Surface-Active Agents."

R. C. Harshman (Prof), S. S. Melsheimer (Asst Prof) and C. H. Gooding (Duke Power Co., Charlotte, N.C.) presented a paper entitled, "A Dynamic, Theoretical Model of Ultrafiltration in Thin, Horizontal Channels," at the 73rd National AIChE Meeting in Minneapolis, Minn., Aug. 27-30.

S. S. Melsheimer was an AEC/ORAU Faculty Research participant during the period May - August. The research conducted at the AEC/DuPont Savannah River Laboratory in Aiken was concerned with an Ion Exchange Membrane Process Donnan Dialysis.

D. F. Bruley (Prof) attended the European Society for Microcirculation, VII International Conference, Aberdeen, Scotland, Aug. 26 - Sept. 1. The following three papers were given with D. D. Reneau (La. Tech Univ), H. I. Bicher (MUSC) and M. H. Knisely (MUSC): "Theoretical Studies of Brain Tissue Oxygenation Considering the Deoxygenation Rate of the Red Cell," "A Systems Analysis of Oxygen and Glucose Transport in the Human Brain Under Conditions of Counter Current Capillary Blood Flow," "Autoregulation of Oxygen Supply to Microareas of Brain Tissue Under Hypoxic and Hyperbaric Conditions."

CHEMISTRY

H. Garth Spencer (Prof and Hd) and S. C. Honeycutt (former Grad Stu) presented a paper entitled, "Sorption of Water Vapor in Partially Hydrolyzed Poly (Vinyl Acetate)," as a contribution to the Symposium on Transport Phenomena through Polymer Films at the 164th National Meeting of the American Chemical Society, New York, Aug. 27-Sept. 1.

Joe F. Allen (Assoc Prof) attended Danforth Associates National Conference in Denver, Colo., Aug. 18-25.

COLLEGE OF ARCHITECTURE

George C. Means, Jr., AIA (Prof and Studio Master of the Graduate option in Health Care Facility Planning and Design) has been appointed by the Governor of the State of South Carolina to membership on the Advisory Hospital Council representing the South Carolina Chapter, the American Institute of Architects.

Tom Turner (Instr, Dept of History and Visual Studies) participated in the American Crafts Council Southeastern Workshop Conference in Jacksonville, Fla. Aug. 8-11. Mr. Turner met with craftsmen and other state representatives from throughout the Southeast as well as officers from the New York office. He was elected state representative during the summer.

Robert L. Chartier (Instr, Health Care Facilities Planning Studio), participated in the twelfth Southeastern School of Alcohol Studies at the University of Georgia Center for Continuing Education, Aug. 13-18.

Ralph Knowland (Hd, Dept of Building Science) represented Clemson University at the National Science Foundation's Seminar on Construction Management in Ann Arbor, Mich., Aug. 1-30.

COLLEGE OF NURSING

Mary Ann Teklits (Instr) participated in a Regional Medical Program, "Cancer Conference for Nurses" on Sept. 15. The telephone talkback program sponsored by the South Carolina Cancer Society was viewed by eleven hospitals through closed circuit TV.

ENGINEERING MECHANICS

Paul B. Zielinski (Assoc Prof) authored a technical report entitled, "The Vortex Chamber as a Grit Removal Device for Water Treatment," published by the Water Resources Research Institute, Clemson University, May 1972.

ENVIRONMENTAL SYSTEMS ENGINEERING

John F. Andrews (Prof and Hd) and Dr. S. P. Graef will present a paper entitled, "Stability Indicators and Control Strategies for the Anaerobic Digestion Process," at the Water Pollution Control Federation Conference, Oct. 10, Atlanta, Ga. At this same conference, J. F. Andrews will also preside at a Research Symposium on Oct. 9 and serve as Assistant Presider at a session on Automation and Modeling on Oct. 10. He will also participate in the program committee meeting on Oct. 11 where the program for the 1973 conference will be outlined.

John H. Austin (Prof) presided at several sessions of the National Decision Makers Workshop held at Annapolis, Md., Aug. 31 - Sept. 1. Dr. Austin served on the planning committee for this workshop which was designed to help plan future workshops on environmental control for local communities.

John H. Austin and Robert L. Reynolds, consultant, presented a paper entitled, "Training Techniques and Methods: A United States Position," at the International Water Supply Association, Ninth Congress, New York, Sept. 11-14.

A. Ray Abernathy (Assoc Prof) who is chairman of the Pollution Control Section of the Water and Pollution Control Association of South Carolina, will represent South Carolina at the Member Association Presidents meeting at the WPCF Annual Conference in Atlanta on Oct. 10.

The Environmental Systems Engineering Dept., in cooperation with the South Carolina Pollution Control Authority and the Consulting Engineers of South Carolina sponsored the Second Annual Water Quality Workshop in Columbia, Sept. 15. The workshop was attended by approximately 150 practicing engineers from across the state. B. C. Dysart III (Assoc Prof) participated in the development of the workshop and made a presentation on "Mathematical stream models and their use in determining impact on receiving waters."

B. C. Dysart III was recently appointed chairman of the Water Pollution Control Planning Committee of the American Society of Civil Engineers' Environmental Engineering Division. The committee is charged with evaluating the state-of-the-art relative to pollution control planning at the state and national level and prepare recommendations for more effective approaches. Dr. Dysart has also been named a member of the Universities Council on Water Resources Publication Committee.

B. C. Dysart III chaired a session and presented a paper at the American Society of Civil Engineers Hydraulics Division Speciality Conference held in Ithaca, N.Y., Aug. 16-18.

ENVIRONMENTAL SYSTEMS ENGINEERING (Continued)

John H. Austin (Prof) will present a paper entitled, :University Programs Relating to Training Wastewater Treatment Plant Operators," at the 45th Annual Water Pollution Control Federation Meeting in Atlanta.

T. M. Keinath (Assoc Prof), M. B. Rubin (Environmental Engineer, Edgewood Arsenal) and R. F. Martin (Environmental Engineer, J. E. Sirrine & Co., Inc.) will present a paper entitled, "Renovation of Textile Desize Wastewaters by Reuse and Reclamation of Polyvinyl Alcohol Size, Desize Waters, and Thermal Energy," at the 45th Annual Conference of the Water Pollution Control Federation, Atlanta, Ga., Oct. 8-13.

EXPERIMENTAL STATISTICS

W. P. Byrd (Prof and Chm) served as co-chairman and host for the annual meeting of University Statisticians of Southern Experiment Stations at Myrtle Beach, Aug. 9-11. Other participants from Clemson were J. R. Holman (Asst Prof, Exp Stat and Comp Center) and Merle Shepard (Asst Prof, Ent and Econ Zoology).

FOOD SCIENCE

Donald M. Henricks (Assoc Prof, Food Science and Biochemistry) has been elected to full membership in the Endocrine Society by its Executive Council. The Endocrine Society is a national interdisciplinary organization of scientists that encourages excellence in the study of the function of endocrine glands and hormones.

J. H. Mitchell (Prof) has been granted United States Patent No. 3,689,287, "Process for Making Peanut Flakes and Product."

HISTORY DEPARTMENT

E. M. Lander, Jr. (Alumni Prof) reviewed Joseph Hawkins, A History of a Voyage to the Coast of Africa. (Frank Case, 1970) in the Journal of the Historical Society of Nigeria, VI (Dec. 1971), 107-108.

HORTICULTURE

William Carroll Barnes (Prof) was named a fellow of the American Society for Horticultural Science on Aug. 31, at the annual meeting of the Society in St. Paul.

HORTICULTURE (Continued)

G. E. Stembridge (Assoc Prof) presented an invited paper entitled, "Effects of growth regulators on size and shape of fruits," at an International Symposium on Growth Regulators in Fruit Production sponsored by the International and American Societies for Horticultural Science. The symposium was held in St. Paul, Minn. on Aug. 26-28.

G. E. Stembridge and C. E. Gambrell (Asst Hort) were co-authors of a paper, "Peach fruit abscission and maturation as influenced by time of ethephon application," at the annual meeting of the American Society for Horticultural Science.

MATHEMATICAL SCIENCES

William H. Ruckle (Assoc Prof) published two papers recently, "Reflexivity of L(E,F)," which appeared in the Proceedings of the American Math Society and "Topologies on Sequence Spaces," Pac. Math. J. 43 (1972).

K. T. Wallenius (Prof) addressed the South Carolina Chapter of the American Statistical Association on the topic, "Coherency in Decision Making," in Columbia on Sept. 8.

Robert E. Fennell (Asst Prof) published a paper recently, "Periodic Solutions of Functional Differential Equations," in the Journal of Mathematical Analysis and Applications.

Renu Laskar (Assoc Prof) and William R. Hare (Assoc Prof) have published a paper in the J. London Math. Soc. entitled, "Chromatic Numbers for Certain Graphs."

John W. Kenelly (Prof and Hd) and W. R. Hare (Assoc Prof) published a paper entitled, "Finite Unions of Convex Sets," in the Proceedings of the American Mathematical Society. Another author for this paper was J. F. Lawrence.

MECHANICAL ENGINEERING

C. S. Rudisill (Assoc Prof) has received third year funding from NASA Langley for a research project entitled "Optimization of Structures to Satisfy Aeroelastic Requirements." The total funding to date is $74,325.

D. W. Cott (Asst Prof) presented a paper, "Feasibility of Laser Radar Probing from a Satellite for Upper Atmosphere Trace Constituents," at the 5th Fluid and Plasma Dynamics Conference in Boston, Mass., June 28.

PHYSICS

Beverly B. Bookmyer (Assoc Prof) has a paper entitled "Photoelectric Light Curves of AK Herculis" in the August issue of the Publications of the Astronomical Society of the Pacific.

Burt V. Bronk (Assoc Prof) has received recognition in "Science" Aug. 24 issue for work published in "Nature" on the thermal effects of x irradiation.

POLITICAL SCIENCE AND SOCIOLOGY

W. C. Capel (Asst Prof) is joint author of an article in the August 1972 issue of Journal of Marriage and the Family entitled "Marriage and Methadone: Spouse Behavior Patterns in Heroin Addicts Maintained on Methadone."

ZOOLOGY

Sidney A. Gauthreaux (Asst Prof) recently published "Behavioral Responses of Migrating Birds to Daylight and Darkness: A Radar and Direct Visual Study," in the Wilson Bulletin, Vol. 84, No. 2, 1972. He also published a book review of "Studies of Bird Hazards to Aircraft" in the latest issue of the Auk, Vol. 89, No. 3, 1972.

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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 5 October 15, 1972

BIDS OPENED ON LEE HALL ADDITION

The apparent low bid of $1,870,000 for construction of an addition to Clemson University's College of Architecture (Lee Hall) has been submitted by Charles D. Wise Construction Co. of Toccoa, Ga.

Bids from five firms ranged up to $2,290,200.

Final acceptance of the bid must be made by the Clemson Board of Trustees and the S.C. State Budget and Control Board before construction can begin. In the event of favorable action, construction is expected to begin in late October with completion expected in early 1974.

The new facility will be a four-level expansion at the south end of Lee Hall.
(Continued on page 2.)

NAMED EMPLOYEE OF YEAR -- James Campbell, left, of Pendleton relaxes with President R.C. Edwards at Physical Plant Division's annual picnic. Campbell was named the outstanding employee of 1972 and received an engraved plaque from Roy C. Rochester, division director. A maintenance mechanic in the Utilities Department, Campbell has been employed at Clemson 11 years.

BIDS OPENED ON LEE HALL ADDITION Continued

The ground-level floor will provide additional studio space for the visual studies program. Facilities planned for this floor include two ceramics studios, two printmaking studios, undergraduate photographic studio (work room and large dark room), graduate photographic studio with four dark rooms, sculpture and painting studios, and a room for the university's master plan model.

Administrative and faculty offices will be located on the lobby or main floor, as will two graduate studios, a jury and demonstration room, and expanded area for the architectural library.

Other floors will contain additional studios and seminar rooms for the College of Architecture's various educational programs.

BARNES WILL RETIRE OCTOBER 31

Dr. W. Carroll Barnes, Clemson's internationally prominent plant breeder at the Charleston Truck Experiment Station, will retire Oct. 31, ending a distinguished career spanning 35 years.

Barnes is credited with developing some 70 percent of the cucumber varieties planted for fresh market use around the world. His pickling cucumber varieties are used on over 50 percent of this nation's pickling cucumber acreage.

During his career, Barnes achieved what no other cucumber breeder has accomplished -- the incorporation of disease resistance to seven major cucumber diseases into one variety.

Commenting on Barnes' contributions, Dr. T.L. Senn, head of the Horticulture Department, said, "Carroll Barnes' contribution as a scientist speaks for itself, but his influence goes far beyond his research successes. Through the years he inspired not only other researchers but also hundreds of horticultural students and vegetable growers."

TIGERAMA KICKS OFF HOMECOMING OCTOBER 20

Tigerama, Clemson's annual outdoor variety show will kick off Homecoming weekend Friday night, Oct. 20. A crowd of more than 13,000 is expected for the all student-produced show which is one of South Carolina's biggest entertainment events.

Popular radio and television personality Monty DuPuy of Greenville will emcee the production along with Clemson senior Colin Covington, the university's answer to impressionist David Frye.

Theme of the show is "Clemson-Its Future." The production this year has been tailored more as broad-based family entertainment, according to TIGERAMA officials.

It all gets underway at 6:30 p.m. with a pep rally and a debate between the Virginia Cavalier and the Clemson Tiger on the outcome of Saturday's game and ends with a spectacular fireworks display. Tickets will be sold at the stadium for 99 cents each. Blue Key national honor fraternity coordinates TIGERAMA with technical assistance provided by student radio station WSBF.

HALPIN NAMED DIRECTOR FOR EXPERIMENT STATION ASSOCIATION

Dr. James E. Halpin, associate agricultural experiment station director, has been named director-at-large for the Southern Association of State Agricultural Experiment Stations.

He will coordinate research activities and program planning in the Land Grant Colleges in the 13 Southern states and Puerto Rico. As one of four regional directors-at-large, Halpin will help coordinate the national agricultural research efforts of the state experiment stations throughout the country.

"This appointment represents an honor for Dr. Halpin and for Clemson University, reflecting favorable recognition of his ability and of our research in South Carolina," commented Dr. Luther P. Anderson, dean of the College of Agricultural Sciences.

Before joining the Clemson faculty, Halpin served five years in Mexico, Colombia and Chile with research programs of the Rockefeller Foundation. He is a graduate of the University of Wisconsin where he earned a B.S. Degree in Agronomy, and M.S. and Ph.D. degrees in Plant Pathology.

LEE HALL GALLERY TO PRESENT "FIGURE IN LANDSCAPE"

"Figure in Landscape" explores a number of conceptual problems that exist in photographic seeing. The exhibit includes work of early photographers who used the camera primarily as a recording device for historic institutions intent on preserving a rapidly vanishing heritage. This period was approximately twenty years (1855 to 1875). After 1880 the figure became more prominent in landscape photographs. A few photographers used the figure in landscape in a new way, some impressed with the romantic aspects of nature, manipulated figures into gestures of nature. Others utilized the delineative directness of the camera to correspond with the internal dimensions of life. Many concepts are explored throughout the one hundred and twenty-five years covered by the exhibition. One exception is the way pictures in this exhibition show that photographers use the medium as a connective force with which to stay in touch, or interpenetrate, the essential spirit of nature.

The exhibit will run Oct. 13 - Nov. 5 at Lee Hall Gallery. Hours are 9:00 - 4:30 Mon. - Fri. and 2:00 - 5:00 Sat. and Sun. Exhibitions are jointly sponsored by the College of Architecture and Clemson Architectural Foundation.

CHESS CLUB WELCOMES NEW MEMBERS

The newly formed Clemson University Chess Club meets Wednesday evenings in the Foyer Room adjacent to the main entrance of the Harcombe Commons Dining Hall. (This is next door to the Main Canteen on campus). Club membership is open to any student, faculty, and staff member, and their dependents. Membership is growing rapidly, so come, beginner or more advanced player, and join in the fun.

EDUCATIONAL COUNCIL MINUTES, SEPTEMBER 4, 1972

Present: Robert C. Edwards, presiding; Victor Hurst, Walter T. Cox, Stanley G. Nicholas, H. Morris Cox, J. W. Gordon Gourlay, Claud B. Green, Luther P. Anderson, Geraldine Labecki, Harold F. Landrith, Melvin C. Long, Harlan E. McClure, Herbert Brantley, L. G. Rich, Ernest B. Rogers, A. E. Schwartz, W. D. Trevillian, K. N. Vickery, Henry E. Vogel, S. M. Willis, and A. W. Rigsby, Secretary.

1. Minutes

The minutes of the meeting of May 1, 1972 were approved as submitted.

2. University Calendar

Recommendation: The Assistant Vice President for Student Affairs and Dean of Admissions and Registration recommends the University Calendar for the academic year 1973-74 and the summer sessions of 1974 as follows:

Clemson University Calendar 1973-74

First Semester
(74 Class Days)

August 20, 21	Mon., Tues. A.M.	Orientation, new students
August 22	Wednesday	Registration, all students
August 23	Thursday A.M.	Late registration
August 24	Friday	Late registration fee applies
August 24	Friday	Classes begin, regular schedule
August 30	Thursday	Last day for registration
August 30	Thursday	Last day to add a subject
September 6	Thursday	Last day to order diploma for mid-year graduation
September 20	Thursday	Last day to drop a subject without record of drop
October 15	Monday	Preliminary reports due
November 14	Wednesday	Last day to withdraw without having grades recorded
November 14	Wednesday	Last day to drop a subject
November 21	Wednesday	Thanksgiving holidays begin after last class
November 26	Monday	Classes resume
December 10	Monday	Examinations begin
December 20	Thursday	Mid-year graduation

EDUCATIONAL COUNCIL MINUTES, SEPTEMBER 4, 1972 (Continued)

Second Semester
(72 Class Days)

January 7	Monday	Orientation, new students
January 8	Tuesday	Registration, all students
January 9	Wednesday	Late registration
January 10	Thursday	Late registration fee applies
January 10	Thursday	Classes begin, regular schedule
January 16	Wednesday	Last day for registration
January 16	Wednesday	Last day to add a subject
January 23	Wednesday	Last day to order diploma for May graduation
February 6	Wednesday	Last day to drop a subject without record of drop
March 4	Monday	Preliminary reports due
March 15	Friday	Spring holidays begin after last class
March 25	Monday	Classes resume
April 5	Friday	Last day to withdraw without having grades recorded
April 5	Friday	Last day to drop a subject
April 10	Wednesday	Honors and Awards Day - classes suspended at 12 noon
April 29	Monday	Examinations begin
May 10	Friday	Commencement

Note: In 1974 Easter falls on April 14.

Summer Sessions 1974
(26 Class Days each Session)

First Session
(Classes Meet Monday-Friday)

May 20	Monday	Registration
May 21	Tuesday	Classes begin
June 26, 27	Wed., Thurs.	Examinations

Second Session
(Classes meet Monday-Friday except as indicated)

July 1	Monday	Orientation, new students
July 2	Tuesday	Registration
July 3	Wednesday	Classes begin

EDUCATIONAL COUNCIL MINUTES, SEPTEMBER 4, 1972 (Continued)

August 3 ---------- Saturday ---------- Classes meet
August 7, 8 ---------- Wed., Thurs. ---------- Examinations
August 10 ---------- Saturday ---------- Graduation

Action: Approved

3. Curriculum Changes

Statement and Recommendation: The Curriculum Committee recommends additions to the curricula, effective when designated on the appropriate request for approval forms as follows:

I. COLLEGE OF AGRICULTURAL SCIENCES

(A) New Undergraduate Courses:

Agric H-491	Senior Honors Research ----------	3 cr. (1 and 6)
Agric H-492	Senior Honors Research ----------	3 cr. (1 and 6)
Ent 470	Insect Physiology ----------	3 cr. (2 and 3)
PS 405	Topical Problems ----------	1-3 cr. (0 and 3-9)
WB 416	Fish Culture ----------	3 cr. (2 and 3)

(B) New Graduate Courses:

Ent 670	Insect Physiology ----------	3 cr. (2 and 3)
PS 605	Topical Problems ----------	1-3 cr. (0 and 3-9)
WB 616	Fish Culture ----------	3 cr. (2 and 3)

II. COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

(A) New Graduate Course:

Text 991	Doctoral Research ----------	Credit to be arranged

Action: Approved

4. Continuing Enrollment Requirements

Statement and Recommendation: The Dean of the University recommends that the regulation relating to minimum requirements for continuing enrollment be amended to read: "A student who has taken a total of 12 to 59 credit hours at Clemson University must have a cumulative grade-point ratio of 1.30 or above."

Action: Approved

EDUCATIONAL COUNCIL MINUTES, OCTOBER 2, 1972

The following items were approved:

1. Freshman Orientation dates for the summer of 1973:

   June 18 and 19, 1973
   June 20 and 21, 1973
   June 22 and 23, 1973
   July 2 and 3, 1973
   July 5 and 6, 1973
   August 20 and 21, 1973

2. Redesignation of E&CE and ME courses as recommended by the Graduate Council to the following courses:

SE 801	SE 484/684	SE 808
SE 802	SE 486/686	SE 809
SE 803	SE 860	SE 885
SE 804	SE 861	SE 886
SE 805	SE 880	SE 887
SE 480/680	SE 881	SE 888
SE 481/681	SE 882	

3. The approval of new graduate courses, also previously approved by the Graduate Council:

BioE 820	Hist 822	Bot 646
EnSc 893	Hist 823	Bot 814
ESE 701	Astr 607	Phys 617
Engl 603	Astr 608	Phys 618
Hist 821		

CHEMICAL ENGINEERING

S. S. Melsheimer (Asst Prof) and B. L. Ornitz (Grad Stu) presented a paper entitled, "A Mobile Process Interface System for Data Acquisition and Control," at the Minneapolis National A.I.Ch.E. Meeting, Aug. 27-30.

D. F. Bruley (Prof) was awarded a NSF Foreign Travel Grant to participate in the 1st Pacific Chemical Engineering Congress in Kyoto, Japan, Oct. 9-14.

GRADUATE COUNCIL MINUTES, SEPTEMBER 8, 1972

The meeting of the Graduate Council was called to order by Dr. F. B. Brown for Dean Schwartz who had been delayed. Those present were: Dr. Allen, Dr. Bolen, Dr. Camper, Dr. Matthews (for Dr. Freeze), Professor Means, Dr.Brawley, Dr. Dysart, Professor Godbout (College of Nursing) attended as a visitor, Mr. Mushinsky, and Mr. Brusse.

Dr. Brown introduced the new members of the Council and those who were absent at the last meeting.

The minutes of the August 4, 1972 meeting were approved as distributed.

The following new graduate courses and changes were approved:

See the Educational Council minutes of October 2, 1972 in this issue of the Newsletter.

The following courses were redesignated at the request of the College of Engineering:

See the Educational Council minutes of October 2, 1972 in this issue of the Newsletter.

The following new program was approved and recommended for submission to the Educational Council:

MS and PhD in Ocean and Coastal Engineering

The Council considered and discussed a request from Dr. E. P. Stillwell, Head of the Department of Physics, to exempt students seeking the PhD degree in Physics from the Graduate School language requirements. Dr. Brawley made a motion to refer this request to the Language, subcommittee of the Graduate Council. The motion was seconded and approved unanimously.

Dr. Camper requested the Graduate Council to formulate a policy concerning the grade of I, incomplete work, on graduate courses. It was agreed that this matter would be discussed at the next meeting.

Dean Schwartz commented on a new thesis format. The Thesis subcommittee was asked to continue their work on the revision of the Thesis Manual.

A motion to adjourn was seconded and approved.

CHEMISTRY

The Student Affiliate Chapter of the American Chemical Society has received a commendation by the ACS Committee on Chemical Education for outstanding accomplishment in its program aimed at developing attitudes of professionalism among chemistry students. The Clemson chapter is one of 41 chapters, out of a total of 553, that has been honored by the ACS for excellence in the 1971-72 academic year. Dr. C. B. Bishop (Assoc Prof) was the Chapter's advisor and E. R. Griffin (B.S., 1972) the president.

CIVIL ENGINEERING

Billy L. Edge (Assoc Prof) presented a paper entitled, "Hybrid Computer Simulation of a Buoy Moored at Sea," at the IEEE Oceans '72 International Conference on Engineering in the Ocean Environment. The conference was held in Newport, R.I. on Sept. 13.

Subhash C. Anand (Assoc Prof) was the Director of a National Science Foundation Summer Institute for College Teachers entitled, "Structural Design: An Interaction Program Between Educators and Practitioners." The Institute was held at Illinois Institute of Technology, Chicago, Ill. and was attended by 32 college and university professors.

COLLEGE OF ARCHITECTURE

Ireland Regnier (Assoc Prof, Dept of History and Visual Studies) has returned to Clemson from a one year leave of absence. Professor Regnier and his family lived the year in London, United Kingdom, where he was employed by the Greater London Council as Fine Artist in the Art Design Group Department. He designed and executed a 21' x 8' mural for the entrance to Southwark College, designed and executed a 300' x 6' mural which surrounded the playground of Winfield Primary School, Kidbrooke Estate, plus designs for playgrounds, play equipment and sculpture. In addition to his work, he had two one man shows of paintings in London and now his work is being handled by a Gallery in London and one in Cambridge, England.

The South Carolina Association of Schools of Art (SCASA) is circulating an exhibition of work by faculty members from affiliated institutions for the 1972-73 school year including four Clemson University artists, John Acorn, Tom McPeak, Don Porter and Tom Turner. The exhibit, including all media, will circulate to eleven different institutions during the year.

James R. Washburn (Assoc Prof in Architectural Studies) was elected Vice Chairman of the Greenville County Air Pollution Control Board on Sept. 28. Professor Washburn was appointed Commissioner on the newly formed Pollution Control Board last year for a three year term.

COLLEGE OF ARCHITECTURE (Continued)

Robert England (Assoc Prof, Dept of History and Visual Studies) was Chairman of a panel on Gothic Architectural Theory and Practice at the 1972 meeting of the Mediaeval Institute in Michigan. From May 24 to June 7 Professor England was in France photographing Gothic and Romanesque structures; in Rome working at the American Academy in Rome (that's its title) and at the Biblioteca di Archeologia e Storia dell' Arte (until Aug. 2).

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

Robert H. Barker (Assoc Prof) has been named a J. E. Sirrine Professor with the same designation. Dr. Barker received his Ph.D. at the University of North Carolina in 1963 and has been on the Clemson staff since 1967.

Dean W. D. Trevillian, Assoc. Dean T. D. Efland, Bruce T. Yandle, Clinton H. Whitehurst, Edwin I. Stearns, Ralph D. Elliott and J. C. Hubbard participated in a team conference visitation day with the Springs Mills executive staff on Oct. 3, at the Spring Mills new Development and Research Center, Fort Mill, S.C.

NATIONAL SCIENCE FOUNDATION GRADUATE FELLOWSHIPS ANNOUNCED

The National Research Council has informed the Graduate School of plans by The National Science Foundation to award approximately 500 new Graduate Fellowships for the 1973-74 academic year. These Fellowships, which are for three-year periods, will be awarded in addition to approximately 1,000 continuations of Graduate Fellowships presently held. Applicants must be beginning graduate students by the Fall of 1973, or must have completed no more than one calendar year of full-time or part-time graduate study by the Fall of 1973. The awards are made for work leading to the MA, MS or Ph.D. degrees in the mathematical, physical, medical, biological, engineering and social sciences, and in the history and philosophy of science. Awards are not made in clinical, education, or busines fields, in history or social work, or for work leading to medical, dental, law, or joint Ph.D. Professional degrees.

Further information may be picked up at the Graduate School Office. Qualified students are urged to pursue the matter promptly as the deadline for filing applications is November 27, 1972.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

J. M. Stepp (Alumni Prof) and J. C. Hite (Assoc Prof) are co-authors with H. H. Macaulay (Alumni Prof) and Bruce Yandle (Hd and Asst Prof, Econ Dept) of a 113 page paperback book entitled The Economics of Environmental Quality, published by American Enterprises Institute, Washington.

ELEMENTARY AND SECONDARY EDUCATION

C. R. Freeze (Prof) and M. A. Packer (Prof) published an article entitled, "The Supervisory Teacher in a Unitary School," in Integrated Education: A Report on Race and Schools, Sept.-Oct., 1972.

ENGLISH

John Idol (Assoc Prof) has indexed the Papers of the Conference on Historic Site Archaeology, 1960-71. Both have been published by the S. C. Institute of Archaeology and Anthropology.

C. L. Montgomery (Instr in Speech) has published a commentary on academic debating, "1984," in the spring issue of Journal of the American Forensic Association.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

T. E. Skelton (Assoc Prof) attended and participated in Elanco 1972 Research Seminar at Wrightsville, N. C. on Sept. 28-29.

ENVIRONMENTAL SYSTEMS ENGINEERING

T. M. Keinath (Assoc Prof), M. B. Rubin (AEHA, U.S. Army, Edgewood Arsenal, Md.) and R. F. Martin (J. E. Sirrine and Co., Inc., Greenville) presented a paper entitled, "Renovation of Textile Desize Wastewaters by Reclamation and Reuse of Polyvinyl Alcohol Size, Desize Waters, and Thermal Energy," at the 45th Annual Conference of the Water Pollution Control Federation, Oct. 8-13 in Atlanta.

GEOLOGY

Recent publication: "Developmental Model for the Southern Appalachians," by R. D. Hatcher, Jr. (Assoc Prof), September issue of Geological Society of America Bulletin, v. 83, p. 2735-2760.

HISTORY

John Y. LeBourgeois (Asst Prof) published "Some Unpublished Letters of Swinburne" in the July issue of Notes and Queries.

INDUSTRIAL AND MUNICIPAL RELATIONS

A four day school for Water and Wastewater Treatment Plant Operators will be conducted at Clemson University at Sumter and Sumter Technical Education Center on Oct. 24-28.

School attendance will be limited to 200. The participants will take the operators certification examination on the last day of the school. The purpose of the school and the certification requirements is to insure that technically competent and responsible individuals are in operational charge of treatment facilities serving the public.

The school is jointly sponsored by the Dept. of Environmental Systems Engineering, Clemson University, and by the South Carolina Water and Pollution Control Association. Administration is through the Industrial and Municipal Relations Office of the College of Engineering. The school director is Dana W. Love, Associate Professor of Continuing Education, Environmental Systems Engineering Dept., and school coordinator is J. K. Johnson, Director of Engineering Extension, College of Engineering.

DEPARTMENT OF LANGUAGES

The Dept. of Languages of Clemson University is sponsoring a Study-Tour in Paris, France from Dec. 17 to Jan. 10, 1973. Students may receive 3 hours credit for French 202 or French 498 (Contemporary French Theatre). Twenty-five days in Paris, approximate total price $735.00 for S. C. Residents, $805.00 for out-of-state students. For further information, contact Dr. H. E. Stewart, 201 Strode Tower, 656-3393.

The Dept. of Languages will be featuring two plays during the month of October. The first will be a French play entitled En Attendant Godot by Samuel Beckett. This will be presented on Oct. 17 at Westside High School in Anderson and on Oct. 19 in Daniel Auditorium at 8:00 p.m.

The second will be a German play entitled Biedermann und die Brandtstifter by Max Frisch. This will be presented on Oct. 20 at Spring Valley High School in Columbia and on Oct. 24 in Daniel Auditorium at 8:00 p.m.

INDUSTRIAL MANAGEMENT

B. J. Todd (Prof) has been elected chairman of the Southeastern Chapter of the Institute of Management Sciences.

R. F.Zant (Asst Prof) received his Ph.D. degree in Economics and Business Administration at the August Commencement of the University of Florida.

MATHEMATICAL SCIENCES

Andrew Sobczyk (Martin Prof) published a paper recently, "Extended Chromatic Polynomials," which appeared in the Canadian Journal of Mathematics, Vol. XXIV (1972). A co-author was James O. Gettys, Jr.

John Kenelly (Prof and Hd) served on an advisory panel for the National Science Foundation that met in Washington, D.C., on Aug. 24-26, to help in the evaluation of proposals submitted to the College Teacher Programs.

William H. Ruckle (Assoc Prof) presented a talk entitled, "On the Classification of Biorthogonal Sequences," at the summer meeting of the American Mathematical Society on Aug. 31 at Dartmouth College in Hanover, N.H.

Carl Ahlers (Asst Prof) has published a paper entitled, "Comparison of Two Linear Estimators with No Assumptions on Rank" which appeared in the Journal of the Industrial Mathematics Society, Vol. 21, Part 2, 1971, pp. 77-83. A co-author was T. Lewis.

Joel V. Brawley, Jr. (Prof) has been invited to serve an additonal term as Visiting Lecturer for the Mathematical Association of America during the academic year 1972-73. The Visiting Lecturer Program is sponsored by the Mathematical Association of America.

John Kenelly (Prof and Hd) has been invited to serve again as a Consultant Bureau member for the Committee on Undergraduate Programs in Mathematics. The Mathematical Association of America sponsors visits by the consultants to individual colleges to advise on mathematical programs.

MECHANICAL ENGINEERING

M. W. Dixon (Asst Prof) will present a paper co-authored by C. O. Huey (Grad Stu) entitled, "Cam-Link Mechanism for Error-free Function Generation" to the 12th ASME Mechanisms Conference in San Francisco on Oct. 9-11.

PHYSICS

J. R. Manson (Asst Prof) presented a colloquium at the University of South Carolina on Oct. 4.

D. P. Miller (Assoc Prof), J. W. Swardstrom (former Grad Stu) and L. A. Duvall (former Grad Stu) have published an article entitled, "The Crystal and Molecular Structure of Tris-(4,4' diducino diphenyl methane)-Sodium Chloride" in Acta Crystallographica, Aug. 15, 1972.

PHYSICS (Continued)

Burt V. Bronk (Assoc Prof) co-authored an article in the July issue of Nature with E. Ben-Hur and M. Elkind of Brookhaven National Laboratory. The results of the paper entitled "Thermally Enhanced Radiosensitivity of Cultured Chinese Hamster Cells," were discussed as a news item in the Aug. 24 issue of New Scientist.

PLANT PATHOLOGY AND PHYSIOLOGY DEPARTMENT

O. W. Barnett, Jr. (Asst Prof) attended the Third International Symposium on Ornamental Viruses at the University of Maryland, Sept. 10-15, and presented a paper, co-authored by L. W. Baxter, Jr. (Prof) entitled: "Cucumber mosaic virus in Nandina and other ornamentals."

O. W. Barnett, Jr., published a paper "Viruses of Iris" in the Bulletin of the American Iris Society, No. 205, pages 27-31.

W. M. Dowler (Research Plant Pathologist, USDA), Eldon I. Zehr (Asst Prof), and George Carter (Grad Res Asst) participated in a workshop of the Peach Tree Short Life Work Group at Southern Pines, N. C., Sept. 14-15. Dr. Dowler was elected chairman of the work group.

E. I. Zehr has been appointed representative of the American Phytopathological Society to the Pesticides Steering Committee of the American Society for Testing and Materials which meets in Philadelphia, Pa., Nov. 10.

TEXTILE DEPARTMENT

A paper, "Industrial Color Tolerances by XI-ETA Formula," was presented by Frederick T. Simon, Sirrine Professor, at an International Color Conference which was held in Driebergen, Holland, Sept. 1972. The paper also appeared in the publication, The Proceedings of the Helmholtz Memorial Symposium on Color Metrics.

John D. Hatcher (Asst Prof), D. W. Lyons (Assoc Prof), and Lowell Nordquist, (Instr of Economics) received a grant from the S. C. Dept. of Corrections to develop Occupational Safety and Health Training Programs for the S. C. Correctional Institutions.

D. W. Lyons and J. D. Hatcher published a paper in the recent issue of the Journal of Microwave Power. The paper was entitled, "Deposition of Finishes and Dyes in Materials Dried Using Microwave Heating."

TEXTILE DEPARTMENT (Continued)

Donald W. Lyons was guest speaker at the recent meeting of the Blue Ridge Safety Council. He summarized the compliance activities of the state and federal government in the field of Occupational Safety and Health.

C. W. Roberts (Assoc Prof) presented two papers at the American Chemical Society's 164th National Meeting in New York, Aug. 27-Sept. 1. The papers were entitled, "The Technical School - College and University Interface in the Teaching of Fiber, Textile and Polymer Chemistry, " and "The Two Year Chemtec Curriculum - An Entree to Four Year Baccalaureate Programs." He was elected to the executive committee of the Division of Organic Coatings and Plastics Chemistry and he was appointed to the ad hoc Council Committee to study the restructuring of the Society.

CALENDAR OF CAMPUS EVENTS

Oct.	15	Sun.	2:00 p.m.	Soccer - N.C. State at Clemson.
Oct.	16	Mon.	2:00 p.m.	JV Football - Citadel at Clemson.
Oct.	16	Mon.		Preliminary reports due.
Oct.	16	Mon.		Football - touch, powder puff; round robbin; entries - Oct. 2-11.
Oct.	17-	Tues.-		Southeastern Vegetable Pest Workshop - Clemson.
Oct.	18	Wed.		
Oct.	17	Tues.	7:30 p.m.	Food Science Club Film, "Food Engineering Projects" WMNRD, Berkeley, California - Rm. A-104 P&AS Bldg.
Oct.	18	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Dining Hall.
Oct.	19	Thurs.		French - En Attendant Godot.
Oct.	19	Thurs.	7:30 p.m.	"Londontown" - P&AS Auditorium.
Oct.	19	Thurs.	7:30 p.m.	Clemson Forensic Union - Demonstration audience debate. Clemson vs. University of Virginia, Lowry Auditorium.
Oct.	20	Fri.	3:00 p.m.	Soccer - North Carolina at Clemson.
Oct.	20	Fri.		Clemson Foundation and Alumni National Council meeting - Clemson House.
Oct.	20	Fri.		Tigerama - Stadium.

CALENDAR OF CAMPUS EVENTS Continued

Oct.	20	Fri.		Chemistry Seminar - Professor Burton J. Krohn, Dept. of Chemistry Battelle Memorial Institute, Molecular Spectra -- time and place to be announced.
Oct.	21	Sat.	1:30 p.m.	Varsity Football - Virginia at Clemson (Homecoming).
Oct.	21	Sat.		Central Dance Association Concert - Littlejohn Coliseum.
Oct.	23	Mon.	7:30 p.m.	JV Football at South Carolina.
Oct.	23	Mon.	3:00 p.m.	Soccer - Western Carolina at Clemson.
Oct.	23	Mon.	9:05 - 11:15 a.m.	Agronomy - Dr. H.L. Balay of the Tennessee Valley Authority, Muscle Shoals, Ala. -"Production, Marketing, and Use of Solid, Solution and Suspension Multinutrient Fertilizers I" - A-203 P&AS Bldg.
Oct.	23	Mon.	12:00 noon	Gamma Sigma Delta fall luncheon - Dr. S.G. Turnipseed, Edisto Experiment Station-"Pest Management on Soybeans."
Oct.	24	Tues.		German - Biedermann und die Brandtstifte.
Oct.	24	Tues.	8:00 p.m.	The Great Thaw - Room 200, Hardin Hall.
Oct. - Oct.	24 - 28	Tues. - Sat.		School for Water & Wastewater Treatment Plant Operators held at Clemson University at Sumter and Sumter Technical Education Center, Sumter, S.C.
Oct.	25	Wed.	3:00 p.m.	Soccer at Furman.
Oct.	25	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Dining Hall.
Oct.	25	Wed.	9:05 - 11:15 a.m.	Agronomy - Dr. H.L. Balay of the TVA, Muscle Shoals, Ala. - "Production, Marketing, and Use of Solid, Solution and Suspension Multinutrient Fertilizers II" - A-203 P&AS Bldg.
Oct.	25	Wed.	7:30 p.m.	Clemson Forensic Union - Parliamentary procedure workshop for student organization officers, Tillman Auditorium.
Oct.	26	Thurs.	1:25 p.m.	Chemistry Seminar - Prof. R. Magid, Dept. of Chemistry, Univ. of Tennessee - "Reactions of Allylic Chlorides with Phenyl Lithium" - Rm. 131 Brackett Hall.
Oct. - Oct.	27 - 28	Fri. - Sat.		Clemson Forensic Union - Valdosta (Ga.) State College, Senior and Junior Debate, Extemp. and Interp.
Oct.	28	Sat.	1:30 p.m.	Varsity Football at Wake Forest.
Oct.	28	Sat.		Graduate Record Examination.

CALENDAR OF CAMPUS EVENTS Continued

Oct.	29	Sun.	2:00 p.m.	Soccer - Virginia at Clemson.
Oct.	29	Sun.	11:30 a.m.	Clemson "B" Soccer - South Carolina at Clemson.
Oct.	30	Mon.	8:00 p.m.	Spanish Feature Film (English sub-titles) - Daniel Theatre.
Oct.	31	Tues.	2:00 p.m.	CU Speakers Bureau - Robert Reisner - Tillman Hall Auditorium.
Oct.	31	Tues.	8:00 p.m.	Chamber Music Series 1972-73 Season, Clemson Arts Trio - Daniel Hall Auditorium - free.
Nov.	1	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Dining Hall.
Nov.	1	Wed.		Speech Night - Daniel Auditorium.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER
INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

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Vol. 12 No. 6 November 1, 1972

DEAN RICH RETURNS TO TEACHING AND RESEARCH

Dr. Linvil G. Rich, dean of the College of Engineering since 1961, has returned to full-time teaching and research as professor of environmental systems engineering.

A committee to serve in advising the administration in the selection of a new dean has been announced by Vice President for Academic Affairs Victor Hurst. Professor D.W. Bradbury, Mechanical Engineering, has been elected by the committee to serve as the chairman. Other members are Dr. Jerry R. Lambert, Agricultural Engineering; Dr. Clifford C. Fain, Ceramic Engineering; Dr. F.C. Alley, Chemical Engineering; Prof. Joseph P. Rostron, Civil Engineering; Dr. James N. Thurston, Electrical and Computer Engineering; Dr. Nelson R. Bauld, Engineering Mechanics, Professor James H. Couch, Engineering Services; Dr. Benjamin C. Dysart, Environmental Systems Engineering; and Dr. James S. Wolf, Interdisciplinary Studies.

Until a successor to Dean Rich is named, Professor James L. Edwards assistant to the dean will be acting dean.

Although he has long wished to return to full-time teaching and research, Dr. Rich continued as dean until a number of projects for the College were completed. One was to greatly strengthen the College's posture in accreditation.

Under Rich's leadership research dollars in the College increased from approximately $25,000 in 1961 to over $3 million in 1972. Graduate enrollment has grown from 29 M.S. candidates in 1961 to 167 M.S. candidates in 1972. In addition there are 34 Ph.D. candidates now enrolled. Graduate degree programs have increased from only four to 13.

Two programs begun during Rich's administration have earned national and international reputations. The Environmental Systems Engineering program established in 1963 has attracted recognition because of its emphasis on the systems approach to wastewater treatment. The graduate program in Bioengineering is widely known and was one of the earliest in the nation organized to prepare students specifically for the technology of artificial organ development.

Among numerous other accomplishments during his deanship, Rich established an Office of Industrial and Municipal Relations in the College. This office coordinates seminars, conferences, workshops and short courses offered in continuing engineering education. Rich received his B.S. in civil engineering,
(Continued on page 2.)

DEAN RICH RETURNS TO TEACHING AND RESEARCH Continued

M.S. in sanitary engineering, and Ph.D. in biochemistry at Virginia Polytechnic Institute. He taught for six years at VPI and four years at Illinois Institute of Technology. He came to Clemson as professor and head of Civil Engineering in 1961. Later that year he was named dean of the College of Engineering.

BARKER NAMED SIRRINE PROFESSOR

Dr. Robert H. Barker has been appointed a J.E. Sirrine Professor in the College of Industrial Management and Textile Science.

Dr. Wallace D. Trevillian, dean of the College, announced the appointment and said the second Sirrine Professorship was provided for by the Trustees of the J.E. Sirrine Textile Foundation of Greenville in its 1972-73 total allocation of $56,500 to the College.

The Sirrine Professorships provide salary supplements to outstanding faculty members.

Dr. Barker received his undergraduate degree in textile chemistry from Clemson in 1959, and his Ph.D. in organic chemistry from the University of North Carolina in 1963. He taught chemistry at Tulane University for five years prior to joining the Clemson faculty as an associate professor of textile chemistry and chemistry.

In research at Clemson, Barker has led extensive studies in the area of fabric flammability in an attempt to establish a better understanding of the chemistry involved in making both cotton and synthetic fibers flame retardant.

The other J.E. Sirrine Professor is Frederick T. Simon who, since coming to Clemson in 1968, has developed an internationally known Color Science Laboratory. Under Prof. Simon's direction, the Color Science Center of the College of Industrial Management and Textile Science is the only type installation of its kind in the nation that is coupled with a state university.

STATE EMPLOYEES' ASSOCIATION ANNOUNCES LIFE INSURANCE CHANGES

Members of the S.C. State Employees' Association were notified recently of important changes in the State Service Life Insurance Program to become effective December 1, 1972. This program should not be confused with the new comprehensive insurance plan which was established for all State employees on July 1, 1972.

The announcement to members from Association headquarters was dated October 12, and a reply postcard authorization was enclosed which is to be returned by November 1. Members are urged to complete and mail this authorization at once if they have not already done so, for the present State Service Life Insurance (underwritten by Pilot Life) will be replaced on December 1 by the new program, and those insured members who do not authorize the new premium deductions will not be continued, according to the announcement from the SCSEA Headquarters (P.O. Box 5206, Columbia, S.C., 29205; Telephone 256-4243).

POLICY FOR SOLICITATION OR FUND RAISING ACTIVITIES ON CAMPUS

The policy covering solicitation or fund raising activities on campus, approved April 25, 1969, has been amended by the University Executive Officers as follows:

> From time to time various civic, charitable or patriotic organizations have come on campus soliciting funds through contribution or sale of merchandise for the advancement of worthy purposes. In some instances the solicitation has been conducted in student areas, including the loggia, dining halls and dormitories. It is not believed desirable, regardless of the merit of the purposes of the organizations, that the students should be solicited. Accordingly all organizations not directly connected with and an integral part of the University should be denied access to University lands other than family housing areas for the purpose of soliciting funds or selling products for the purpose of raising funds from personnel of the university community.

DENTAL APTITUDE TEST DATE CHANGED

The University Counseling Center has been advised that the Dental Aptitude Test scheduled for Friday January 5, 1973, has been changed to Saturday January 6, 1973, and the test scheduled for Friday April 27, 1973, has been changed to Saturday April 28, 1973.

THREE MORE PRODUCTIONS SCHEDULED BY CLEMSON PLAYERS

The Clemson Players, all-student drama troupe at Clemson, will present three more plays during its regular 1972-73 season.

The productions and dates are:

-- "Of Mice and Men" by John Steinbeck, Nov. 9-11 and Nov. 16-18, directed by Prof. Robert F. Barton.

-- "See How They Run" by Philip King, Feb. 22-24 and March 1-3, directed by Prof. Corinne H. Sawyer.

-- "Dames at Sea" by George Hainsohm, Robin Miller and Jim Wise, April 12-14 and April 19-21, directed by Prof. Robert F. Barton with musical direction by Prof. Janice L. Sargent.

The Players first production, "School for Wives," a Richard Wilbur translation of a Moliere play, was presented earlier in October.

Clemson Players productions are open to the public, free of charge.

Total Enrollment by Courses and Academic Classification
Clemson University
First Semester 1972-1973

Major Course	Freshman (Semester) 1st	Freshman (Semester) 2nd	Sophomore (Semester) 1st	Sophomore (Semester) 2nd	Junior (Semester) 1st	Junior (Semester) 2nd	Senior (Semester) 1st	Senior (Semester) 2nd	Five-Year (Semester) 1st	Five-Year (Semester) 2nd	Post. Grad	Mast	PhD	Uncl	Total
Agriculture	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
Agricultural Economics	6	4	5	2	9	4	11	7	0	0	0	13	8	0	69
Agricultural Engineering	12	1	5	1	3	0	1	4	0	0	0	2	3	0	32
Agricultural Mechanization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agronomy	10	2	9	2	7	3	6	2	0	0	0	6	4	0	51
Animal Industries	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Animal Physiology	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6
Animal Science	9	8	6	6	11	3	15	5	0	0	0	11	0	0	74
Dairy Science	2	3	5	0	1	3	2	1	0	0	0	4	0	0	21
Entomology	0	0	0	2	1	1	2	3	0	0	0	16	13	0	38
Food Science	12	0	2	0	1	2	1	1	0	0	0	0	0	0	19
Horticulture	5	5	4	4	11	3	18	10	0	0	0	10	2	0	72
Nutrition	0	0	0	0	0	0	0	0	0	0	0	4	4	0	8
Plant Pathology	0	0	0	0	0	0	0	0	0	0	0	3	3	0	6
Plant Physiology	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8
Plant Sciences	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Poultry Science	0	1	1	0	2	0	0	1	0	0	0	2	2	0	9
Pre-Veterinary	50	24	15	11	19	1	1	0	0	0	0	0	0	0	121
Wildlife [illegible]logy	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12
Sub-Total	110	49	52	28	65	20	57	34	0	0	0	83	53	0	551
Architecture	1	0	0	1	1	0	0	0	0	3	0	34	0	0	40
Building Construction	11	13	23	7	16	4	10	14	1	0	0	0	0	0	99
City and Regional Planning	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21
Pre-Architecture (BA)	63	25	31	9	44	8	25	5	0	1	3	3	0	0	217
Pre-Architecture (BS)	31	1	1	1	0	0	0	0	0	0	0	0	0	0	34
Visual Studies	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9
Sub-Total	106	39	55	18	61	12	35	19	1	4	3	67	0	0	420

Total Enrollment by Courses and Academic Classification
Clemson University
First Semester 1972-1973
page two

Major Course	Freshman (Semester) 1st	Freshman (Semester) 2nd	Sophomore (Semester) 1st	Sophomore (Semester) 2nd	Junior (Semester) 1st	Junior (Semester) 2nd	Senior (Semester) 1st	Senior (Semester) 2nd	Five-Year (Semester) 1st	Five-Year (Semester) 2nd	Post Grad	Mast	PhD	Uncl	Total
Education (Non Degree)	0	0	0	0	0	0	0	0	0	0	0	130	0	0	130
Administration and Supervision	0	0	0	0	0	0	0	0	0	0	0	63	1	0	64
Agricultural Education	13	6	8	1	4	4	11	15	0	0	0	10	0	0	72
Early Childhood Education	58	11	21	9	20	8	15	2	0	0	1	0	0	0	145
Elementary Education	116	31	63	28	76	17	58	22	0	0	1	96	0	0	508
Industrial Education	18	14	12	10	23	12	39	19	0	0	0	28	0	0	175
Personnel Services	0	0	0	0	0	0	0	0	0	0	0	83	0	0	83
Reading	0	0	0	0	0	0	0	0	0	0	0	88	0	0	88
Science Teaching	8	2	6	4	11	3	13	7	0	0	0	1	0	0	55
Secondary Education	57	16	54	19	82	33	54	37	0	0	2	105	0	0	459
Sub-Total	270	80	164	71	216	77	190	102	0	0	4	604	1	0	1779
Engineering	20	1	0	0	0	0	0	0	0	0	0	0	0	0	21
Bio-Engineering	0	0	0	0	0	0	0	0	0	0	0	27	6	0	33
Ceramic Engineering	17	5	9	2	8	3	16	2	0	0	0	9	0	0	71
Chemical Engineering	28	7	37	1	17	7	22	13	0	0	0	17	10	0	159
Civil Engineering	68	17	29	12	34	14	31	19	0	0	0	21	3	0	248
Electrical Engineering	71	31	44	12	42	13	39	34	0	0	0	22	15	0	323
Engineering Analysis	7	5	3	0	5	4	6	8	0	0	0	0	0	0	38
Engineering Mechanics	0	0	0	0	0	0	0	0	0	0	0	5	2	0	7
Environmental Systems Engineering	1	0	0	0	0	0	0	0	0	0	0	27	11	0	39
Industrial Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Materials Engineering	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
Mechanical Engineering	46	11	28	13	25	18	28	20	0	0	2	19	5	0	215
Metallurgical Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Systems Engineering	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Technical Operations	3	3	3	10	11	15	21	12	0	0	1	0	0	0	79
Water Resources Engineering	0	0	0	0	0	0	0	0	0	0	0	9	1	0	10
Sub-Total	261	80	153	50	142	74	163	108	0	0	3	163	54	0	1251
Forestry	64	22	29	12	19	11	8	16	0	0	0	11	0	0	192
Recreation & Park Administration	78	44	41	35	58	29	48	26	0	0	0	16	0	0	375
Sub-Total	142	66	70	47	77	40	56	42	0	0	0	27	0	0	567

Total Enrollment by Courses and Academic Classification
Clemson University
First Semester 1972-1973
page three

Major Course	Freshman (Semester) 1st	Freshman (Semester) 2nd	Sophomore (Semester) 1st	Sophomore (Semester) 2nd	Junior (Semester) 1st	Junior (Semester) 2nd	Senior (Semester) 1st	Senior (Semester) 2nd	Five-Year (Semester) 1st	Five-Year (Semester) 2nd	Post Grad	Mast	PhD	Uncl	Total
Accounting	26	11	18	10	23	10	9	3	0	0	0	0	0	0	110
Administrative Management	104	88	61	48	84	42	38	20	0	0	0	0	0	0	485
Economics	11	3	6	4	14	8	16	14	0	0	0	9	1	0	86
Engineering Management	0	0	0	0	0	0	0	0	0	0	0	0	22	0	22
Financial Management	62	19	31	17	24	10	12	7	0	0	0	0	0	0	182
Industrial Management	39	8	14	10	29	23	50	34	0	0	0	0	1	0	208
Management	0	0	0	0	0	0	0	0	0	0	0	24	2	0	26
Textile and Polymer Science	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Textile Chemistry	10	1	3	0	5	2	4	0	0	0	1	10	1	0	37
Textile Science	4	1	2	0	4	1	2	3	0	0	0	8	0	0	25
Textiles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-Total	256	131	135	89	183	96	131	81	0	0	1	52	28	0	1183
Liberal Arts (Undeclared)	22	11	13	1	2	0	0	0	0	0	0	0	0	0	49
English	47	12	35	12	32	18	11	13	0	0	1	48	0	0	229
French	1	2	3	2	0	0	3	0	0	0	1	0	0	0	12
German	1	1	1	0	2	1	0	0	0	0	0	0	0	0	6
History	49	11	19	6	9	11	11	6	0	0	0	13	0	0	135
Political Science	69	25	34	13	40	14	22	9	0	0	1	0	0	0	227
Psychology	73	24	40	16	44	19	33	12	0	0	1	1	0	0	263
Sociology	53	13	13	13	16	6	17	4	0	0	0	0	0	0	135
Spanish	9	2	1	1	4	4	2	0	0	0	0	0	0	0	23
Sub-Total	324	101	159	64	149	73	99	44	0	0	4	62	0	0	1079
Nursing (AA)	23	16	31	6	3	1	0	1	0	0	0	0	0	0	81
Nursing (BS)	90	21	51	6	26	5	13	2	0	0	0	0	0	0	214
Sub-Total	113	37	82	12	29	6	13	3	0	0	0	0	0	0	295

Total Enrollment by Courses and Academic Classification
Clemson University
First Semester 1972-1973
page four

Major Course	Freshman (Semester) 1st	Freshman (Semester) 2nd	Sophomore (Semester) 1st	Sophomore (Semester) 2nd	Junior (Semester) 1st	Junior (Semester) 2nd	Senior (Semester) 1st	Senior (Semester) 2nd	Five-Year (Semester) 1st	Five-Year (Semester) 2nd	Post Grad	Mast	PhD	Uncl	Total
Biochemistry	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
Biology	9	9	5	6	9	5	4	0	0	0	1	1	0	0	49
Botany	5	1	1	1	0	2	1	1	0	0	0	6	0	0	18
Chemical Physics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chemistry (BA)	0	0	1	1	2	0	3	1	0	0	0	0	2	0	10
Chemistry (BS)	15	5	10	1	8	1	8	3	0	0	0	16	18	0	85
Geology (BA)	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3
Geology (BS)	6	0	4	0	3	1	2	1	0	0	0	0	0	0	17
Mathematics (BA)	18	4	10	1	11	4	1	2	0	0	0	1	1	0	53
Mathematics (BS)	40	8	19	5	28	6	17	8	0	0	0	63	20	0	214
Medical Technology	55	9	17	3	11	0	2	0	0	0	0	0	0	0	97
Microbiology	33	17	23	10	17	6	11	7	0	0	0	21	0	0	145
Physics (BA)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Physics (BS)	9	0	5	2	9	2	4	3	0	0	0	13	22	0	69
Pre-Dentistry	45	12	9	4	15	3	11	5	0	0	1	0	0	0	105
Pre-Medicine	136	14	26	13	34	4	25	6	0	0	5	1	0	0	264
Pre-Pharmacy	27	8	6	2	1	0	0	0	0	0	0	0	0	0	44
Zoology	46	24	37	16	43	12	29	14	0	0	0	21	13	0	255
Sub-Total	445	111	174	66	192	46	118	51	0	0	7	148	76	0	1434
Non-Degree	5	2	0	0	0	0	0	1	0	0	8	0	0	9	25
Sub-Total	5	2	0	0	0	0	0	1	0	0	8	0	0	9	25
CAMPUS TOTAL	2023	696	1044	445	1114	444	862	485	1	4	30	1206	212	9	8584

Enrollment by Men and Women - Full Time and Part Time
Clemson University
First Semester 1972-1973

Classification	MEN			WOMEN			TOTAL		
	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total
1st Semester Freshman	1255	14	1269	744	19	763	1999	33	2032
2nd Semester Freshman	505	8	513	171	12	183	676	20	696
Sub-Total	1760	22	1782	915	31	946	2675	53	2728
1st Semester Sophomore	644	11	655	379	10	389	1023	21	1044
2nd Semester Sophomore	327	6	333	106	6	112	433	12	445
Sub-Total	971	17	988	485	16	501	1456	33	1489
1st Semester Junior	782	16	798	308	8	316	1090	24	1114
2nd Semester Junior	346	6	352	88	4	92	434	10	444
Sub-Total	1128	22	1150	396	12	408	1524	34	1558
1st Semester Senior	654	15	669	187	6	193	841	21	862
2nd Semester Senior	348	65	413	58	14	72	406	79	485
Sub-Total	1002	80	1082	245	20	265	1247	100	1347
1st Semester Five-Year	1	0	1	0	0	0	1	0	1
2nd Semester Five-Year	4	0	4	0	0	0	4	0	4
Sub-Total	5	0	5	0	0	0	5	0	5
TOTAL	4866	141	5007	2041	79	2120	6907	220	7127
Graduate-Masters Level	416	271	687	113	406	519	529	677	1206
Postgraduate	14	9	23	1	6	7	15	15	30
Non-Degree	1	7	8	1	0	1	2	7	9
Graduate-Ph.D. Level	150	46	196	12	4	16	162	50	212
TOTAL	581	333	914	127	416	543	708	749	1457
CAMPUS TOTAL	5447	474	5921	2168	495	2663	7615	969	8584
Institutes	0	124	124	0	344	344	0	468	468
Clemson-Furman MBA	10	129	139	0	7	7	10	136	146
Greenville Campus	189	17	206	82	22	104	271	39	310
Sumter Campus	155	11	166	77	6	83	232	17	249
OFF CAMPUS TOTAL	354	281	635	159	379	538	513	660	1173
GRAND TOTAL	5801	755	6556	2357	874	3201	8128	1629	9757

MINUTES OF MEETING OF THE FACULTY SENATE, SEPTEMBER 12, 1972

The meeting was called to order at 4:15 p.m. by President Rogers. The minutes of the August meeting were corrected and approved. President Rogers recognized Prof. C. R. Dillon, newly elected to the Faculty Senate replacing Prof. F. B. Brown.

In other announcements, President Rogers reported that at the August meeting of the Board of Trustees of Clemson University, the Board named buildings for Winchester Smith and James F. Byrnes. Two new life members, Paul McAlister and James Waddell, have been elected to the Board of Trustees. At the October Senate meeting, Mr. S. L. Shehee will be invited to present information concerning a proposed seminar on estate planning.

Correspondence from Vice President Cox to W. T. Lavender, President of the Student Senate, concerning the rights and responsibilities of students was referred to the Admissions and Scholarship Committee for further consideration.

President Rogers reported that he and members of the Policy Committee had met with Vice President Hurst on September 11 to discuss a proposed change in pay periods for faculty members from monthly to biweekly. The meeting was held to explain the proposal in order to get Senate reaction to the proposed change at the September meeting. Several senators felt that it was essential to have more time to adequately consider the change. In the discussion several questions were raised concerning the effect the change would have on summer teaching salaries, available time for summer research, and summer contributions to insurance from the teaching faculty. After considerable discussion, the following motion was presented:

> "Be it resolved, that the Faculty Senate requests the Vice President for Business and Finance supply the Senate with additional information concerning the proposed change in pay periods, and that the Senate go on record as opposing any change in pay period until the information can be reviewed."

The motion was seconded, and passed unanimously.

In committee reports, Professor Fanning, chairman of the Admissions and Scholarship Committee, reported that the committee was studying the system for faculty approval of graduate degrees, class attendance regulations, and systems for removal of the grade of I. Professor Fanning informed the Senate that the Undergraduate Council planned to discuss the Senate's recommendation of dropping grades of WP and WF and replacing them with the grade of W.

Professor West, chairman of the Welfare Committee, discussed the statements concerning coordination of benefits between the State Insurance Program and Traveler's Income Continuation plan made at previous meetings

MINUTES OF MEETING OF THE FACULTY SENATE, SEPTEMBER 12, 1972 (Continued)

held to explain the insurance program. The Traveler's plan is not coordinated with the State plan.

Professor Shannon, reporting for Ad Hoc Committee B, presented a report containing information related to the budget at Clemson University. A copy is attached to the minutes.

President Rogers stated that the Senate needed to elect a member to the University Disciplinary Committee. Professor R. A. Rimkus was unanimously elected as the Senate representative:

Professor J. D. Fulton, member of the Vending Machine Committee, reported that there would be less available funds for the school year, and that the majority of these funds were being allocated by the Student Government.

In response to questions from several senators concerning the policy of providing transcripts in grievance hearings, there was a motion that the University provide a copy of hearing transcripts to the complainant. The motion, after a second, passed unanimously. This will be referred to the Policy Committee for possible inclusion in the next revision of the Faculty Manual.

Professor W. F. Beckwith presented the following motion in regards to this semester's voting holidays:

> "Whereas,the South Carolina legislature passed a bill to give students a school holiday for voting in the Democratic primary, and Clemson University decided to also give the students a holiday to vote in the national election;
>
> Whereas, both holidays happen to fall on Tuesdays so that 13.2% (2/15) of the classes that only meet on Tuesday will not be held or the students will receive 13.2% less instruction than they paid for.
>
> Be it resolved, that the Faculty Senate requests the administration to add two days to the Fall 1972-1973 semester for the Tuesday classes missed."
>
> The motion was seconded, and after considerable discussion, passed.
>
> The following motion was presented by Professor R. A. Rimkus:
>
> "Whereas the laws of the state of South Carolina provide procedures for absentee balloting;
>
> Whereas the state legislature has enacted a provision making the day upon which the primary elections were held an official university holiday;

MINUTES OF MEETING OF THE FACULTY SENATE, SEPTEMBER 12, 1972 (Continued)

Whereas the administration of Clemson University has designated the day upon which the general elections are to be held an official university holiday;

Where this effectively removes 13.2% of Tuesday class time from the fall schedule of Clemson University;

Whereas such actions, no matter how high their intentions, adversely affect the education process and the scheduling of classes;

Be it resolved that this Faculty Senate opposes these schedule changes and any other schedule changes that are representative of anything but an extraordinary need that cannot be met in any other way."

The motion, after a second, passed unanimously.

The meeting was adjourned at 6:07 p.m.

Absent from the meeting: V. Carmack, E. A. Vaughn, and R. L. Cross.

REPORT OF AD HOC COMMITTEE B ON THE 1972-1973 UNIVERSITY BUDGET

On Thursday, August 24 the chairman of the Committee requested Dean Victor Hurst for information on the University budget for 1972-1973. On Friday morning September 8 the Committee met in the President's office with President Edwards and Dean Hurst. R. D. Shannon and W. F. Beckwith attended the meeting along with Senate President Ernest Rogers in place of M. D. Sherrill, who was unable to attend.

President Edwards discussed the current budget and related matters in considerable detail. Among the points he made were the following:

(1) The situation regarding the current budget (i.e., that stemming from the failure of the state legislature to provide some $3 million of the requested revenue) is unique. In past years inadequacy of state funds became apparent in ample time to permit raising tuition in order to cover expected costs; this year, President Edwards pointed out, it was not known until April 13 how limited the state funds would be. An increase in tuition at that date was not feasible since scholarship funds, etc., had already been committed for the coming year. President Edwards does expect that tuition will be raised for the coming year.

(2) Of the budget for "Current Operations," funds received for items 2-6 (see attached list) provide no option for reallocation into "Education and General Expenses," since the state legislature has generally specified how these funds are to be used. (The same is true of funds earmarked

REPORT OF AD HOC COMMITTEE B ON THE 1972-1973 UNIVERSITY BUDGET (Continued)

"For Permanent Improvements.") For the expenses for "Education and General Expenses," only about half the total budget ($15.4 million out of $29.2 million) comes from the state legislature; the remainder is covered by student fees, payment for food services and for dormitory rooms ("Auxiliary Expenses"), etc.

(3) When it became necessary to reduce expenditures for the current year, President Edwards said, he favored maintaining expenditures for people and reducing outlays for equipment. Since there are constant changes in the budget, he anticipates that more funds may be available for equipment as the year progresses.

In his previous discussion with the committee chairman, Dean Hurst had commented on his decision to determine cutbacks in the budget himself instead of allowing the various deans to make the decisions for their respective colleges. He said that he didn't think that, in the end, it would have made any great difference, and he pointed out that one might also argue that Department Heads, faculty members, etc., etc., should also have been consulted.
R. D. Shannon, Chairman, W. F. Beckwith, M. D. Sherrill.

MINUTES OF THE MEETING OF THE FACULTY SENATE, SEPTEMBER 19, 1972

The meeting was called to order at 4:17 p.m. by President Rogers. After informing the Senate that the special meeting had been called in order to answer questions about the proposed change in pay periods for Clemson University faculty members, President Rogers introduced Mr. Melford A. Wilson, Vice President for Business and Finance.

Vice President Wilson introduced staff members present to assist with answering questions arising from the faculty. These members were: M. E. Barnette, T. N. Hinton, J. B. Gentry, and J. C. Peck. Vice President Wilson related the history of the proposed change in pay periods, pointing out that the primary function of the Business and Finance office was to facilitate the education and research processes of the University. It was stated by Vice President Wilson that whatever period was used, the pay period would have nothing to do with the amount of time available for summer research. There are still some details to be worked out, such as summer insurance deductions for teaching faculty and the methods for paying faculty members teaching in summer school.

After the discussion, the general feeling of the Faculty Senate was to support the proposed change to a biweekly pay period.

CLEMSON UNIVERSITY

SUMMARY OF BUDGET RECOMMENDATIONS

(Based on Estimated Funds Available)

The following are summaries of proposed operating budgets of the major divisions and estimates of revenues earmarked by law for permanent improvements for the fiscal year beginning July 1, 1972 and ending June 30, 1973.

SUMMARY OF PROPOSED BUDGETS

	Estimated Expenditures 1971-72	Proposed Budget 1972-73
A. FOR CURRENT OPERATIONS		
1. Educational and General:		
(a) Teaching and Maintenance	$20,973,676	$22,091,721
(b) Auxiliary Enterprises	3,163,797	3,487,221
(c) Affiliated Activities	3,296,687	3.674,979
2. Agricultural Research	4,939,384	6,003,554
3. Agricultural Extension Service . . .	6,480,958	7,116,686
4. Fertilizer Inspection and Analysis .	161,073	173,335
5. Livestock-Poultry Health Dept	1,290,465	1,432,346
6. Forest and Recreation Research . . .	275,097	298,083
Total (For Current Operations) .	$40,581,137	$44,277,945

B. FOR PERMANENT IMPROVEMENTS (Revenues earmarked by law for payment on bond debt and notes)	
1. Tuition and Matriculation Fees	$ 1,543,000
2. Library, Plant Improvement, and Special Student Fees	299,500
3. Faculty and Student Housing Revenues	1,235,500
4. Multipurpose Auditorium Fees	60,000
5. Football Stadium Fees	145,000
Total (For Permanent Improvements)	$ 3,283,000
GRAND TOTAL	$47,560,945

Prepared as of August 11, 1972

MINUTES OF UNDERGRADUATE COUNCIL, SEPTEMBER 5, 1972

The Undergraduate Council met in the conference room, E-103A, Martin Hall. The following were present: Dean Claud B. Green (Chairman), Luther W. Baxter, R. L. Cross, Arline Marie Duvall, Lawrence W. Gahan, Ralph W. Gilchrist, Peter Lee, Jerome V. Reel, John H. Rodgers, Chester R. Smith, Kenneth N. Vickery, and E. A. Vaughn (Visitor).

As the initial order of business, R. L. Cross was appointed temporary secretary in the absence of Dr. Briscoe.

After consideration of the various scheduling conflicts, all future meetings of the Council, at least for the remainder of this semester, were tentatively scheduled for 3:00 p.m. on the first Friday of each month.

A subcommittee report on the proposal from the College of Engineering for a Summer Traineeship Program in Occupational Safety and Health was submitted by Dr. Jerome V. Reel, Subcommittee Chairman. A copy of the report is attached.

A response to items 1A and 1B in the subcommittee report was then offered by Dr. Ralph W. Gilchrist; a copy of that response is attached.

There was a motion and second to accept the subcommittee report; the motion was approved unanimously.

Dean Green then reported to the members of the Council on the preceding day's actions of the Educational Council.

Next, Dean Green announced that October 1, 1972, is the deadline for submission of all undergraduate curricula proposals to be considered by the Undergraduate Council.

Announcement was made that a subcommittee has been appointed to consider recommendations with regard to our undergraduate program in pre-medical education. The members are Dr. Lawrence W. Gahan (Chairman), Dr. Ralph W. Gilchrist, and Dr. Malcolm J. Skove. The subcommittee will report to the full Council in the latter part of October.

Dr. Malcolm J. Skove was appointed Chairman of the Committee on the Improvement of Undergraduate Teaching, standing committee of the Council. Members of this committee are John Acorn, R. L. Cross, J. L. Stevenson, Spurgeon N. Cole, D. W. Bradbury, T. E. Skelton, Carolyn Briscoe, and the two student members of the Undergraduate Council (yet to be appointed by the Student Senate).

MINUTES OF UNDERGRADUATE COUNCIL, SEPTEMBER 5, 1972 (Continued)

Another standing committee of the Council, the Committee on Admissions and Continuing Enrollment, will be chaired by Dean K. N. Vickery. Its members include R. C. Harshman, E. A. Vaughn, W. W. Pennscott, D. Y. Brannock, Jr., B. M. Cool, Luther W. Baxter, Lamar H. Brown, Eugene Park, Aileen Prevost, R. J. Berry, and the two student representatives from the Undergraduate Council.

Dean Green then briefly summarized for the members of the Committee the various items of important business likely to come before the group during the academic year; these matters range from a review of grading practices to a survey of admissions procedures.

The meeting concluded with Dean Green's advising the members of their responsibility for informing alternates in the event of absence from committee meetings.

The next meeting of the Undergraduate Council will take place Friday, October 6, 1972, in the conference room, E-103A, Martin Hall.

CLEMSON FACULTY AT HISTORY FORUM

Three Clemson University professors will participate in the sixth annual History Forum sponsored by Duquesne University's history department November 1-3.

Joseph L. Arbena (Asst Prof) is a panelist for the discussion "The Uses of History" on Nov. 1. His topic is "Change and Continuity: The United States History Survey."

James E. Sargent (Asst Prof) will speak during the session "Politics and Economics: The New Deal" on Nov. 3. "Raymond Moley and the New Deal: A Reappraisal" is his topic.

William L. Pippin Jr. (Instr) is session moderator.

INFLUENZA VACCINE CLINIC FOR ALL FACULTY, STAFF AND DEPENDENTS

There will be a clinic for Influenza vaccine for all University personnel and their dependents on Nov. 7, from 4:30 to 6:00 p.m. in Room 101-Physics Building. There will be a charge of $2 per person. The latest vaccine will be used and includes all strains of viruses available at this time.

MINUTES OF MEETING OF UNIVERSITY LIBRARY COMMITTEE, SEPTEMBER 5, 1972

Present: William E. Bachop, William Baron, R. J. Calhoun, Elizabeth Galloway, Opal S. Hipps, Ursula Holahan, Ralph Knowland, D. B. Stafford, J. M. Wannamaker, J. W. G. Gourlay.

1. Dr. M. W. Jutras, Chairman 1971-72, spoke of the responsibilities of the Committee, the work accomplished in 1971-72, and conducted the election of new officers.

2. Mr. Ralph Knowland was elected Chairman for 1972-73 and J. W. Gordon Gourlay, Secretary.

3. After discussion it was the consensus that the first Thursday of the month would be the most convenient time of meeting, and that the meeting should begin at 3:30 P.M.

4. Mr. Gourlay commented on

   a. The new Faculty Manual which included academic status for the professional librarians.

   b. That the reserve book policy, which an ad hoc committee composed of Dr. R. J. Calhoun and Dr. D. B. Stafford had assisted in formulating during the summer, had been put into effect and was working satisfactorily.

   c. He then reviewed the 1972-73 library book budget, outlined the conference held with Dean Green and Dean Hurst, and the present status of the budget. After discussion and questions the following resolution was passed.

      The University Library Committee is concerned about the poor funding of the library relating to the purchase of books and periodicals. In order to continue to meet faculty requests, the Committee would appreciate every effort that the Administration can make to increase the library appropriation. At the current rate at which requests are being received from the faculty, available funds will be exhausted by the end of November. It is particularly important that sufficient funds be made available so that the library can reach its goal of 800,000 volumes as quickly as is practicable.

5. The Committee commended Dr. Jutras for his service to the library during 1971-72.

6. Time of next meeting, Thursday, October 5, 1972, 3:30 P.M.

MINUTES OF MEETING OF FINE ARTS COMMITTEE, OCTOBER 5, 1972

The meeting was called to order at 3:30 p.m. All rotating members were present except Drs. Howard and McLaughlin. Student members not present were Misses Covington and Gilreath.

Dean Victor Hurst, a guest at the meeting, spoke briefly on the hope that communications within the University could be improved by a greater sharing of the deliberations of all University committees through the dissemination of these deliberations. The present reporting of these minutes in the Faculty Newsletter is a result of this request. In addition members of the committee were urged to solicit the various elements they represent for ideas and opinions to be brought up for discussion.

Financial reports for the Concert Series and the Lectures, Films and Plays Series for the preceding academic year were presented, as well as budgets for the same for the 1972-73 year. Money available for lectures has been increased to $2,850 and for foreign-language films to $900. Budget for the annual Shakespeare play remains at $1,750.

The main item of business was the adoption of a policy for distribution of lecture monies. After some deliberation, it was decided that the same procedure would be followed this year as in the past, viz., the various colleges will be solicited to apply for lecture support for definite commitments to prospective lecturers on a first-come, first-served basis until monies available have been exhausted. A limit of $500 for any individual lecture will continue to be imposed.

It was further decided that henceforth plans for apportionment of lecture monies will be decided in the spring preceding the academic year in which the funds would be utilized. In addition, it was deemed advisable to entertain Student Senate appointments to the Committee in the spring, appointees to serve for the academic year beginning the following fall.

The chairman was empowered to draft a resolution to the administration endorsing a high priority for a performing arts building on campus, in light of difficulties and inequities that are apparent in the programming and administration of the University Concert Series. The meeting adjourned at 4:45 p.m.

SCHOLARSHIPS AND AWARDS COMMITTEE MEETING, SEPTEMBER 26, 1972

1. The first meeting of the Scholarships and Awards Committee for 1972-73 was held in Room E-103, Martin Hall at 3:30 P.M., September 26, 1972. Present: W. C. Godley (Chairman), J. R. Warner, J. T. Lazar, H. E. Morgan, W. C. Whitten, A. L. Recoulley, Claudia Blanford, P. A. Steiner, K. N. Vickery, Susan Delony, A. M. Bloss, Frederick W. Andrea, and Nelwyn L. Stone.

2. Minutes of the May 3 meeting were approved.

3. Dr. C. B. Green, Dean of Undergraduate Studies, discussed the committee's functions and also reviewed scholarship selection policies and procedures. Dean Green stated that the committee should follow the approved policies and procedures until new ones have been established. He said that the recommending of needed changes to existing policies is a function of the committee.

4. Members representing the various colleges were reminded to insure that nominations for Who's Who Among Students in American Universities and Colleges were submitted by October 4th. Selection of the nominees will be at a meeting at 3:30 P.M., October 9th.

5. Effective the school year beginning September, 1973 the contribution for the R. O. Hull Scholarships will be increased from $1,000 to $2,500. The committee decided that five scholarships of $500 each be established.

6. The meeting was adjourned at 4:05 P.M.

FELLOWSHIPS IN NATURAL RESOURCES ANNOUNCED FOR 1973-1974

The Graduate School has been informed of the availability of Annual Doctoral Fellowships in Natural Resources for the 1973-1974 academic year. These fellowships are made available through Resources for the Future, a private foundation. Candidates must be nominated by the academic department in which the student is a doctoral candidate and they must be in some early stage of doctoral dissertation research. In addition the applicant's research must relate to natural resources, their products, or their services including land, water, minerals, energy materials, forests, outdoor recreation, fish, wildlife, and air, or any combination of these. Social sicences or related fields must be an integral part of the research. Further information may be obtained from the Graduate School.

GRADUATE COUNCIL MINUTES, OCTOBER 13, 1972

The meeting of the Graduate Council was called to order by Dr. F. B. Brown for Dean Schwartz who had been delayed. Those present were: Dr. Wooten (for Dr. Allen), Dr. Bolen, Dr. Camper, Dr. Freeze, Prof. Means, Dr. Brawley, Dr. Dysart, Dr. Lyons (for Dr. Macaulay), Mr. Mushinsky, and Mr. Brusse. Attending as visitors were Prof. Godbout and Dr. Gauthreaux.

The minutes of the September 8, 1972 meeting were approved as distributed.

The following new graduate courses and changes were approved:

Ag Ec	809	Economics of Waste Disposal and Management
Ag Ec	881	Internship in Community and Resource Development
RS	881	Special Problems in Rural Social Research
Gen	806	Special Problems in Genetics
Arch	685	Health Care Delivery Systems and Health Care Facilities Seminar
Arch	688	Health Care Facilities Programming Techniques
Arch	886	Health Care Facilities Components and Functions
CRP	821	Intergovernmental Relations in the Planning Process
CRP	865	Planning Studio IV
CRP	885	Capital Improvements Programming
Vis	690	Directed Studies
Ag Ed	623	Curriculum
Ag Ed	625	Teaching Agricultural Mechanics
Ag Ed	736	Internship: Teaching
Ed	776	College Teaching
ChE	814	Applied Numerical Methods in Process Simulation
ChE	818	Polymer Processing
CE	817	Mass Transit Planning
E&CE	807	Power System Analysis Techniques
E&CE	808	Electromechanical Energy Conversion
E&CE	817	Power System Transient Analysis
ESE	846	Pollution of the Aquatic Environment
ESE	847	Pollution of the Aquatic Environment Lab
ME	807	Mechanical Systems I
ME	808	Mechanical Systems II
ME	809	Thermal Systems I
ME	810	Thermal Systems II
SE	890	Special Topics in Systems Engineering
CT	610	Introduction to Digital Control (Replac. existing course)
CT	810	Modern Control Theory I (Replac. ME 859)
CT	811	Modern Control Theory II (Replac. ME 865 and ECE 810)
CT	815	Nonlinear Controls (Replac. ECE 814 and ME 866)
CT	820	Digital Control I
CT	821	Digital Control II (Replac. ECE 809)
CT	910	Adaptive and Optimal Control (Replac. EE 811)
For	603	Forest Soils Seminar

GRADUATE COUNCIL MINUTES, OCTOBER 13, 1972 (Continued)

RPA	607	Methods of Environmental Interpretation
RPA	709	Special Problems
RPA	710	Current Issues in Recreation
Econ	808	Seminar in Public Employee Labor Relations
Pol Sc	622	Problems of Public Administration
Pol Sc	623	Municipal Administration
Psych	622	Cross Cultural Studies in Developmental Psychology
Psych	690	Special Topics in Psychiatry and Neurology
Psych	699	Current Research Seminar
Bioch	810	Biochemical Techniques
Botany	701	Evolutionary Botany for Teachers
Botany	702	Modern Botanical Concepts for Teachers
Math	732	Projective Geometry
Math	771	Numerical Methods in Secondary School Mathematics
Math	781	History of Mathematics
Math	783	Theory of Numbers
Math	791	Mathematical Problems in the Curriculum
Math	806	Nonparametric Statistics
Math	809	Time and Series Analysis, Forecasting and Control
Math	988	Special Topics in Operations Research
Micro	991	Doctoral Research
Astr	704	Astronomy for High School Teachers (Replac. Phys 704)
Phys	715	Experimental Physics for High School Teachers I
Phys	716	Experimental Physics for High School Teachers II
Zool	700	Modern Developments in Zoology for High School Teachers (Replac. Biol 700)
Zool	701	Man's Impact on Ecology (Replac. Biol 800)
Zool	702	Field Methods in Zoology for High School Teachers (Replac. Biol 750)
Zool	840	Comparative Animal Physiology I (Replac. Zool 806)
Zool	841	Comparative Animal Physiology II (Replac. Zool 806)
Zool	845	Advanced Cell Physiology

The following courses were tabled:

CRP	890	Directed Studies in City and Regional Planning
Psych	671	Psychometrics

The following stipulations were made regarding the Control Theory courses submitted by the College of Engineering: that it is the intent of the Graduate Council that the Control Theory sequence does not constitute a new major, but a mechanization for unifying a well defined sequence of material in support of existing programs. The Council also went on record of the intent that the Psychology courses were not to be utilized as a minor field for graduate students.

A motion was made that the Department Heads for Zoology and Animal Physiology consult to assure coordination of the Zoology courses mentioned above, therefore, Zoology 840 and Zoology 841 will not be forwarded to Dean Hurst pending a

GRADUATE COUNCIL MINUTES, OCTOBER 13, 1972 (Continued)

recommendation from the Animal Physiology Committee.

A motion was made that Mr. George Perry Sawyer be admitted to candidacy for December 1972 graduation based on recommendations from his advisory committee. The motion was seconded and passed with six (6) in favor, two (2) opposed, and two (2) abstaining.

Dean Schwartz appointed a subcommittee consisting of Dr. Gauthreaux, chairman, Dr. Camper, and Mr. Mushinsky to review the proposal for the Master of Science in Wildlife Biology Option in Marine Biology.

A policy concerning the grade of incomplete was approved in principle. After further editing, this policy will be released for implementation.

The motion to adjourn was seconded and passed unanimously.

INDUSTRIAL AND MUNICIPAL RELATIONS

A one-day seminar on "Process Systems Simulation Through Mathematical Modeling" will be conducted on Wednesday, November 8, in Earle Hall.

The seminar will assist the engineer and management in the process industry who seek to use mathematical modeling as a tool in improving process control, process optimization, and process design. The seminar is sponsored by the Dept. of Chemical Engineering. Speakers will include J. N. Beard (Asst Prof), D. F. Bruley (Prof), and S. S. Melsheimer (Asst Prof), all of the Dept. of Chemical Engineering, Clemson University. Dr. C. L. Smith, Associate Professor of Chemical Engineering and Chairman of the Dept. of Computer Science at Louisiana State University will be guest lecturer.

The seminar director is Prof. S. S. Melsheimer and the coordinator is Prof. J. K. Johnson, Director of Engineering Extension.

ELECTRICAL AND COMPUTER ENGINEERING

J. W. Lathrop (Prof) and Anil Gupta (Grad Stu) published a paper entitled, "Yield Analysis of Large Integrated - Circuit Chips," in IEEE Journal of Solid-State Circuits, Vol. SC-7, pp. 389-395, October, 1972.

ENGINEERING RESEARCH

S. F. Hulbert (Assoc Dean), J. J. Klawitter (Asst Prof), B. W. Sauer (Asst Prof), and L. S. Bowman (Medical Univ of S. C.), "Characterization of Tissue Growth into Pellets and Partial Sections of Porous Ceramics Implanted in Bone," paper presented at the 25th annual conference on Engineering in Medicine and Biology, Bal Harbor, Fla., Oct. 4.

B. W. Sauer, H. B. Skinner (Medical Univ of S. C.), and S. F. Hulbert, "Application of Ceramic-Metal-Polymer Composites in Oral Implantology," paper presented at the 25th annual conference on Engineering in Medicine and Biology, Bal Harbor, Fla., Oct. 5.

S. F. Hulbert served as Session Chairman for the Tissue Properties Section of the 25th annual conference on Engineering in Medicine and Biology, Bal Harbor, Fla., Oct. 2-5.

S. F. Hulbert presented a seminar to the 3M Central Research Staff entitled, "Design of Orthopedic and Oral Appliances," in St. Paul, Minn. on Sept. 28.

S. F. Hulbert has been appointed Program Chairman for the Biomedical Engineering Section of the American Society for Engineering Education.

ENVIRONMENTAL SYSTEMS ENGINEERING

E. S. Iracki (Asst Prof) and H. V. Malmstadt (Univ of Illinois) published a paper entitled "TRIAC Switching Circuitry for Eliminating Interfering Transients in Digital Logic Automatic Systems" in the September issue of Analytical Chemistry 44, 1924 (1972).

A. R. Abernathy (Assoc Prof) and D. W. Love (Assoc Dir of Continuing Education) are Chairman and Program Chairman this year of the Pollution Control Section of the Water and Pollution Control Association of South Carolina. The Pollution Control Section, the South Carolina affiliate with the Water Pollution Control Federation, will hold its 23rd Annual Meeting at the Holiday Inn No. 2 in Greenville on Nov. 9-10 and Abernathy and Love will preside and direct the technical and business sessions. Persons interested in attending may call them at 3276.

STUDENT RELATIONS COMMITTEE

President Edwards recently has appointed a Student Relations Committee consisting of:

Mr. John E. Moon, Vice-President of the Student Body
Miss Susan Delony, Assistant Dean of Students
Professor William F. Steirer, Jr.
Mr. Francis M. Young, Jr.
Dr. John D. Fulton, Vice-President of the Faculty Senate, Chairman

The Committee's function is to hear grievances by students against faculty members and to attempt to resolve those grievances. The Committee will meet as often as necessary to attempt to resolve swiftly pending grievances. Please inform your classes that grievances may be presented to the Committee by presenting them to any member of the Committee.

CHEMISTRY

Recent Publications: J. W. Huffman (Prof), "Attempted Duplication of the Methyl Shift in Eremophilane Biosynthesis," J. Org. Chem., 37, 2736 (1972).

C. W. Milligan (former Grad Stu) and F. J. Lindstrom (Prof), "The Determination of Calcium Using Glyoxal Bis (2-hydroxanil) and Its Derivatives," Anal. Chem. 44, 1822 (1972).

GEOLOGY

R. D. Hatcher, Jr. (Assoc Prof) was a contributor to the International Geological Congress Field Trip in the Southern Canadian Cordillera, Aug. 5-19. The excursion began in Calgery, Alberta and ended in Vancouver, British Columbia.

Recent Publication: V. S. Griffin (Assoc Prof), "Progress Report on a Geologic Study in Abbeville and McCormick Counties, South Carolina," Geologic Notes, v. 16 (1972).

LANGUAGES

Harry E. Stewart (Prof and Hd) participated in a panel discussion on "International Studies in South Carolina," at Newberry College.

Leon E. Seamon (Asst Prof) has been elected Secretary-Treasurer of the South Carolina Chapter of the American Association of Teachers of Spanish and Portuguese.

Ed Arnold (Instr) chaired the S. C. Chapter of the American Association of Teachers of German. He also presented a paper entitled, "Vocational Opportunities in a Foreign Language."

Leon Seamon (Asst Prof) directed a play, Una noche de primavera sin sueno by Enrique Jardiel-Poncela. The play was presented Sept. 20 at Wade Hampton High School in Greenville and Sept. 26 on the Clemson campus.

On Oct. 6 and 7, several members of the Language Dept. attended the Mountain Interstate Foreign Language Conference at Furman University. Those presenting papers were:

Gaston J. Fernandez (Assoc Prof), "La tecnica del entrecruzamiento de planos en La ciudad y los perros de Mario Vargas Llosa."

Harry E. Stewart (Prof and Hd), "Flower Symbolism in Jean Genet's Haute Surveillance."

Pedro F. Parrado (Asst Prof), "'Espanol,' palabra extranjera: razones y motivos."

Patricia W. Wannamaker (Assoc Prof), "Building a Basic Vocabulary with the Overhead Projector."

Ed Arnold (Instr), "Vocational Opportunities in Foreign Languages."

R. M. COOPER LIBRARY

Robert Wiggins (Systems Analyst, Comp Center) and Gordon Gourlay (Dir, Library) attended a meeting of representatives of the Association of Southeastern Research Libraries at Chapel Hill on Oct. 4. The purpose of the meeting was to discuss the operation of the Ohio College Library Center and the problems and costs of replicating the system in the Southeast. The proposed plan for the Southeast consists of a central data bank of all books cataloged by member libraries available through an on-line remote access system. Furthermore, the system could be expanded to include other library operations. The purpose of the network is to increase the speed and decrease the cost of cataloging books in each member library.

MATHEMATICAL SCIENCES

John Kenelly (Prof and Hd) has been invited to serve an additional term as Visiting Lecturer for the Mathematical Association of America during the academic year 1972-73. The Visiting Lecturer Program is sponsored by the Mathematical Association of America.

Stanley M. Lukawecki (Assoc Prof) attended the Seventh-Third Annual Meeting of Sigma Xi at Myrtle Beach on Oct. 6-9 and chaired a session on "The Public Image of Sigma Xi."

POLITICAL SCIENCE AND SOCIOLOGY

Martin Slann (Asst Prof) delivered a lecture entitled, "Tolstoyan Pacifism and the Kibbutz Concept of Haganah Azmit" on Oct. 13 to the Princeton University Hillel Foundation.

Charles W. Dunn (Assoc Prof and Hd) and Samuel K. Gove, "Legislative Reform Vacuum: The Illinois Case," National Civic Review 61 (October, 1972): 441-446.

RECREATION AND PARK ADMINISTRATION

C. R. White (Asst Prof) directed the second annual Camping Program for Senior Citizens, Oconee State Park, Sept. 18-22 and Sept. 25-29. The program, sponsored by the Dept. of Recreation and Park Administration and the South Carolina Commission on Aging, was attended by 50 persons ranging in age from 62-87.

REDFERN HEALTH CENTER

Donald K. Freeman, M.D. (Dir of Mental Health) served on a panel discussing "The College Student, the Psychiatrist, and the College" at the Third Annual Eastern Seaboard Conference of the Carolinas, Maryland, New York, Philadelphia, and Virginia Societies for Adolescent Psychiatry, held over the Columbus Day Weekend at Kerhonkson, N.Y.

ZOOLOGY DEPARTMENT

Averett S. Tombes (Assoc Prof) recently published "Scanning Electron Microscopy of the Spermatheca in Sitophilus granarius (L.)" in Tissue and Cell, Vol. 3, No. 4.

Averett S. Tombes while at the University of Lille, France, last academic year lectured on his research concerning invertebrate endocrinology at the University of Bruxelles, Free University of Amsterdam, Netherlands Central Institute for Brain Research and University of Paris.

CALENDAR OF CAMPUS EVENTS

Nov.	1	Wed.	7:00 a.m.	Ft Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Nov.	1	Wed.	7:30 p.m.	Clemson Forensic Union - Speech Night finals - Daniel Auditorium.
Nov.	2	Thurs.	8:00 p.m.	Graduate Wives meeting - YMCA.
Nov.	2	Thurs.	4:00 and 8:00 p.m.	Guns of August - History Film Series - Daniel Auditorium.
Nov.	2	Thurs.	3:45 p.m.	Clemson University Women's Club -- "Holiday Creations For Your Home" -- guest Miss Roxanne Smith -- Clemson House.
Nov.	3-5	Fri.-Sun.		Baptist Student Union fall convention - Greenwood.
Nov.	3	Fri.	3:00 p.m.	Soccer at Duke.
Nov.	3	Fri.	3:30 p.m.	Rifle team - Presbyterian at Clemson - Rifle range.
Nov.	4	Sat.	1:30 p.m.	Varsity Football - North Carolina at Clemson (Parents' Day).
Nov.	4	Sat.		Admission Test for Graduate Study in Business.
Nov.	4	Sat.		Central Dance Association Concert - Littlejohn Coliseum.
Nov.	6	Mon.	8:00 p.m.	The Frozen World - room 200, Hardin Hall.
Nov.	6	Mon.	9:05 & 11:15 a.m.	Agronomy - Mr. A.V. Whitney of the Royster Co., Norfolk, Va. - "Plant Food Distribution" - A-203 P&AS.
Nov. 7- Nov. 28		Tues.-Tues.		Architecture exhibit - "The Education of an Architect -- A Point of View" - Lee Hall Gallery.
Nov.	8	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Nov.	8	Wed.	8:00 p.m.	Romance and Reality - room 200, Hardin Hall.
Nov.	8	Wed.		One-day seminar on "Process Systems Simulation Through Mathematical Modeling" to be held at Earle Hall.
Nov.	9	Thurs.	1:25 p.m.	Chemistry Seminar - Dr. Schunn of Dupont Central Research - "Zerovalent Complexes of Nickel, Palladium and Platinum" - room 131, Brackett Hall.

CALENDAR OF CAMPUS EVENTS (continued)

Nov.	9	Thurs.	8:00 p.m.	The Hero as Artist - room 200, Hardin Hall.
Nov. 9- Nov. 11		Thurs.- Sat.	8:00 p.m.	Clemson Players "Of Mice and Men" - Daniel Hall Auditorium - Open to the public - Admission free.
Nov.	10	Fri.	8:00 p.m.	JV Football at Georgia Tech.
Nov. 10- Nov. 11		Fri.- Sat.		Clemson Forensic Union - Western Kentucky University (Bowling Green, Ky) Novice Debate, Extemp. and Interp.
Nov. 10- Nov. 12		Fri. Sun.		Clemson Forensic Union - University of South Carolina (Columbia) Varsity and Novice Debate.
Nov.	11	Sat.	1:30 p.m.	Varsity Football at Maryland.
Nov.	12	Sun.	2:00 p.m.	Soccer - Maryland at Clemson.
Nov.	13	Mon.	8:00 p.m.	French Feature Film (English sub-titles) - Daniel Theater.
Nov.	14	Tues.	4:00 & 8:00 p.m.	Martin Luther - History Film Series - Daniel Auditorium.
Nov.	14	Tues.	8:00 p.m.	The Gregg Smith Singers - Littlejohn Coliseum.
Nov.	15	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Commons.
Nov.	15	Wed.	2:00 p.m.	CU Speakers Bureau - John McCook Roots - Daniel Auditorium.
Nov.	15	Wed.	9:05 & 11:15 a.m.	Agronomy - Dr. J.B. Jones, Jr., Extension Agronomist, University of Georgia - "Interpretation of Soil and Plant Analyses for Prescribing Lime and Fertilizer Needs" - A-203 P&AS.
Nov. 15- 16		Wed.- Thurs.	(To be announced) 1:25 p.m.	Chemistry seminar - Prof. H. House, Department of Chemistry, Georgia Institute of Technology - Dupont Lecturer - Room 131, Brackett Hall

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

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CLEMSON NEWSLETTER
INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 7 November 15, 1972

TRUSTEES APPROVE CONTRACT FOR LEE HALL ADDITION

A $1,768,000 contract for construction of a new wing on Clemson University's College of Architecture building was awarded Nov. 4 by the University Board of Trustees.

The Board, meeting in regular session on campus, approved a recommendation from the university administration that the contract be awarded to Charles D. Wise Construction Co. of Toccoa, Ga. Wise was the low bidder among five firms which bid on the project Oct. 4.

The new wing will be a four-level expansion at the south end of Lee Hall, the present architectural building. It will provide an additional 65,000 square feet of space, more than doubling the existing physical capacity of the College of Architecture.

Clemson Trustees also adopted a resolution accepting a bequest of approximately $38,000 from the estate of the late William S. Megonigal Jr. of Montchanin, Del.

In other actions, the Board:

Approved revisions proposed by the S.C. State Crop Pest Commission in the supplemental regulations to the Imported Fire Ant Quarantine and the Japanese Beetle Quarantine.

Approved the granting of rights-of-way easements on university lands in Pickens County to the State Highway Department and Duke Power Co.

Recommended further study of a visual identification symbol for the university, to be used initially with the University Development Programs.

Approved an amendment proposed by the department of fertilizer inspection and analysis to the rules and regulations of the Fertilizer Board of Control effective July 1, 1973.

During the afternoon, the Clemson Board members joined members of the S.C. Commission on Higher Education -- who also met at the university -- for a tour of campus facilities.

MINUTES OF THE UNDERGRADUATE COUNCIL, OCTOBER 6, 1972

The Undergraduate Council met on Friday, October 6, 1972, in Room E-103 Martin Hall. Present were: Dean Claud Green (Chairman), Luther W. Baxter, Carolyn Briscoe, Lamar Brown, Robert L. Cross, Arline Duvall, R. W. Gilchrist, Maxine Norris (Student Representative), Henry Pate (Visitor), J. V. Reel, William A. Shain, Malcolm J. Skove, Chester R. Smith, Rodney Sprott (Student Representative), and Kenneth Vickery.

The minutes of the September 5, 1972 meeting were approved.

The following new undergraduate courses and changes were approved:

AnSc	205	Light Horse Management
AnSc	412	Horse Science (Replaces AnSc 407 and 409)
EnSc	471	Man and His Environment (Replaces EnH 471)
EnSc	472	Environmental Control and Planning(Replaces EnH 472)
Gen	H302	Genetics
PS	203	Avian Science (Replaces PS 201)
Arch	485	Health Care Delivery Systems and Health Care Facilities Seminar
Arch	488	Health Care Facilities Programming Techniques
Vis	490	Directed Studies
AgEd	423	Curriculum (Replaces AgEd 422)
AgEd	425	Teaching Agricultural Mechanics (Replaces AgEd 422)
InEd	103	Woodworking II (Replaces InEd 202)
InEd	105	Machining Practices (Replaces InEd 305)
InEd	208	Electricity (Replaces InEd 303)
InEd	452	Advanced Projects
BioE	402	Medical Applications of Engineering Science
BioE	450	Special Topics in Biomedical Engineering
ChE	431	Cryogenic Engineering
ChE	456	Applications of Optimization Theory
ChE	460	Introduction to Occupational Safety and Health
ChE	461	Industrial Hygiene Analysis and Instrumentation
ChE	462	Air Resources Engineering
CE	421	Advanced Building Materials Selection
CT	410	Introduction to Digital Control
E&CE	424	Power Systems Analysis II
Engr	110	Engineering Problems WorkshopI
Engr	120	Engineering Problems Workshop II
Engr	220	Technology in the Modern World
ESE	410	Radioassay Techniques for Environmental Monitoring
ME	450	Ventilation Design and Operation
ME	451	Control of Physical Stresses
ME	452	Safety Engineering
For	315	Forest Ecology
RPA	407	Methods of Environmental Interpretation

MINUTES OF THE UNDERGRADUATE COUNCIL, OCTOBER 6, 1972 (Continued)

The following courses were tabled:

BioE	470	Enzyme Engineering
ESE	445	Environmental Engineering Microbiology

Changes in existing courses were approved as follows:

InEd	101	Introduction to Industrial Education (Change in credits, from 1 cr to 2 cr)
InEd	416	Management and Operation of Industrial Education (Change in title and course description)
InEd	441	Comprehensive Laboratory Field Experience (Change in title and course description
CE	460	Civil Engineering Systems Analysis (Change in course number)
E&CE	420	Power Systems Analysis I (Change in title and description)
MatE	450	Special Topics in Materials Engineering (Change in credits)

Curricula revisions were approved as submitted for programs in Agricultural Engineering, Industrial Arts Education, Vocational-Technical Education, Education for Industry, Ceramic Engineering, and RPA.

Additional proposals approved were:

Delete History 313, South Carolina History, from the Elementary and Early Childhood Education programs thereby reducing the total number of hours for graduation from 132 to 129.

Change the catalog wording of "AS or MS Elective" in both semesters of the freshman and sophomore years to read "Free Elective."

Change the name of the Technical Operations program in the College of Engineering to the Engineering Technology program. Change the name of the degree awarded to the Bachelor of Science Degree in Engineering Technology.

Endorsement was given to the following proposals from the College of Liberal Arts:

Special Three-Weeks Session in Paris, France, December 17,1972-January 10, 1973 under the direction of the Department of Languages.

Clemson in England program for the First Summer Session of 1973 under the direction of the Department of History.

The meeting will be continued on Friday, October 13, 1972.

MINUTES OF THE UNDERGRADUATE COUNCIL, OCTOBER 13, 1972

The Undergraduate Council met on Friday, October 13, 1972, at 3:00 P.M. in Room 108 Strode Tower. In the absence of the Secretary the minutes were taken by the Chairman. Present were: Dean Claud Green (Chairman), Luther W. Baxter, Lamar H. Brown, C. C. Fain, L. W. Gahan, C. R. Smith, J. V. Reel, Jr., Arline Duvall, M. J. Skove, R. L. Cross, J. H. Rodgers, Maxine Norris (Student Representative), and Rodney Sprott (Student Representative). Attending the meeting as observers were A. R. Abernathy (College of Engineering) and R. F. Hebert (College of Industrial Management and Textile Science).

The following new undergraduate courses and changes were approved:

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

Econ	399	Senior Seminar in Economics
IM	308	Principles of Marketing
IM	401	Quantitative Marketing Analysis
IM	410	Marketing Research I
IM	411	Marketing Research II
IM	412	Marketing Management
IM	413	Marketing Communications
IM	421	Consumer Behavior
Text	122	Introduction to Textiles

Approval was given for the following changes:
Move IM 306, Corporate Finance to Second Semester, Junior Year.
Move IM 308, Principles of Marketing to First Semester, Junior Year.
In place of IM 412, Marketing Management in the Second Semester, Senior Year, substitute IM 412, Marketing Management or IM 401, Quantitative Marketing Analysis.

Change the footnote shown by "Area concentration or technical elective" to read: "A student not selecting an area concentration may, with the approval of his advisor, select instead 12 credits from an approved department technical elective list."

IM 306, Corporation Finance - Charnge prerequisite to read:
"Junior standing and permission of the Instructor."

The following programs were approved:
Bachelor of Arts in Economics
Bachelor of Science in Economics
Minor in Textiles for Economics Majors

MINUTES OF THE UNDERGRADUATE COUNCIL, OCTOBER 13, 1972 (Continued)

COLLEGE OF LIBERAL ARTS

Engl	334	The Structure of Poetry
Engl	441	Continental Fiction in Translation
Hist	431	Cultural Influence of China on Europe
PolSc	405	American Presidency
PolSc	435	Administration of Justice
Psych	101	Orientation to Psychology
Psych	301	Industrial Psychology
Psych	425	The Psychology of Aging
Span	421	The Spanish American Novel
Span	422	The Contemporary Spanish American Novel

COLLEGE OF NURSING

The faculty of the Baccalaureate Degree Program, College of Nursing requests that the following statement be approved as effective for the new students or transfers to the College, fall 1973, and included in all publications in which the Baccalaureate Degree Program curriculum plan refers or is described:

"The Biological, Physical and Social Sciences, and Mathematics courses scheduled for the Freshman and Sophomore years are prerequisite to Nursing 208, Problem Solving in Nursing."

COLLEGE OF PHYSICAL, MATHEMATICAL AND BIOLOGICAL SCIENCES

Ch	310	Elementary Chemical Instrumentation
Ch	330	Introduction to Physical Chemistry
CompSc	210	Digital Computation and Numerical Methods for Engineers
Math	231	Mathematics of Life Insurance
Math	430	Actuarial Finite Differences
Math	431	Theory of Interest
Math	432	Actuarial Science Seminar
Math	H452	Linear Programming
Micro	100	Microbes and Human Affairs
Micro	400	Public Health Microbiology
Micro	411	Pathogenic Bacteriology
Zool	110	Integrated Basic Science as Related to Man I
Zool	111	Integrated Basic Science as Related to Man II
Zool	421	Advanced Invertebrate Zoology
Zool	474	Invertebrate Endocrinology

MINUTES OF THE UNDERGRADUATE COUNCIL, OCTOBER 13, 1972 (Continued)

Approval was given to change the sophomore year curriculum in Microbiology as follows: the substitution of Mathematics or Science Elective, 3-4 credits, for Zoology Elective, 3-4 credits, in the first semester, and the same substitution for Botany Elective in the second semester.

The following programs were approved:
Bachelor of Science in Mathematics with a Psychology Option
Bachelor of Science in Mathematics
Bachelor of Science in Mathematics with an Actuarial Science Option

DEPARTMENT OF FORESTRY ACCREDITATION CONTINUED

Dr. Robert C. Edwards, President, has been notified by Mr. Ben C. Meadows, President of the Society of American Foresters, that reaccreditation of professional instruction in forestry in Clemson University's Department of Forestry has been confirmed by the Council of the Society.

The reaccreditation, which is for a period of five years, follows an on-campus review in November, 1971, concurrent with the general university review by the Southern Association of Colleges and Schools.

FOOD SCIENCE

A paper entitled, "Plasma Estrogen, Progesterone and Luteinizing Hormone Prior to Estrus and During Early Pregnancy in Pigs,"by H. D. Guthrie (Grad Stu), D. M. Henricks (Assoc Prof), and D. L. Handlin (Assoc Prof, An Sci) has been published in Endocrinology, September 1972.

D. M. Henricks presented a seminar entitled, "Effects of Nutrition and Exogenous Hormones on Endocrine Status and Reproduction in the Domestic Animal," to the Biochemistry Dept. at the Medical University of Charleston, Oct. 2.

J. C. Acton (Asst Prof) attended the 61st Annual Meeting of the Poultry Science Association, Aug. 7-10 at Ohio State University and presented the following research papers: "Pickled eggs: Rate of acid penetration into egg components," J. C. Acton and M. G. Johnson (Asst Prof), authors. "Postmortem muscle changes: Effect on chicken loaf properties," F. B. Wardlaw (Grad Asst), B. D. Barnett (Prof and Hd, Pou Sci), and J. C. Acton, authors.

MINUTES OF UNIVERSITY SCHEDULE COMMITTEE, SEPTEMBER 15, 1972

The Schedule Committee met in Room 118, Brackett Hall with the following present: K. N. Vickery (Chairman), H. D. Adams, G. W. Anderson, R. P. Ashworth, R. J. Berry, L. H. Brown, B. M. Cool, J. H. Couch, R. C. Grant, J. A. Hash, J. C. Harden, L. L. Henry, R. C. Harshman, J. W. LaGrone, H. G. Lefort, W. R. Mattox, C. M. McGee, C. M. McHugh, R. F. Nowack, J. H. Steed, Susan Rockwell, E. B. Rogers, R. C. Turner, J. V. Walters, J. B. Whitney, W. C. Whitten.

Schedule guidelines for distribution of course offerings throughout the class week were distributed and discussed.

It was agreed that departments would submit course offerings for the second semester by October 6 and Pre-Registration was set for November 14, 15. Pre-Registration materials will be available for distribution on November 13.

The examination schedule format was discussed and attention was directed to the following statement from the College Record:

> "Semester Grades. The standing of a student in his work at the end of a semester is based upon daily classwork, tests or other work, and the final examinations. Faculty members may excuse from the final examinations all students having the grade of A on the work of the course prior to the final examination, but for all other students written examinations are required in all subjects at the end of each semester, except in certain laboratory or practical courses in which final examinations are not deemed necessary by the department faculty."

The Committee reaffirmed a previous request that theory classes not be scheduled at 1:25 Thursday in order that this period would be available for convocations, college and departmental meetings.

A profile of class meetings for each period of the academic week was distributed.

HORTICULTURE

H. J. Sefick (Assoc Prof) recently gave a talk on grape production in South Carolina and his experiences with French-American hybrids at a meeting of the Greenville Chapter of the American Wine Society.

E. T. Sims, Jr. (Prof) and C. E. Gambrell, Jr. (Asst Hort) presented invited papers at a Workshop on the Mechanical Harvesting of Peaches held in Athens, Ga. at the Richard B. Russell Agricultural Research Center. The Workshop, held Oct. 25-26 was sponsored by the Deciduous Fruit Subcommittee of the Southern Region Task Force of Experiment Station Directors.

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

The Clemson Liason Committee of the South Carolina Textile Manufacturers Association met Oct. 23 with representatives of the College of Industrial Management and Textile Science and culminated plans for the Textile Science Fair to be held on Nov. 15, for outstanding high school juniors and seniors.

The Governor's Textile Committee met in Sirrine Hall on Oct. 20. The Committee heard presentation by Donald Lyons (Assoc Prof) on Occupational Safety and Health and Robert Barker (Assoc Prof) on flammability retardance. Senator John Long III, of Union County is chairman of the committee.

ELEMENTARY AND SECONDARY EDUCATION

Elizabeth R. Galloway (Asst Prof) was the speaker for the elementary session at the fourth annual workshop of the South Carolina Department of Reading Teachers and Reading Supervisors in Columbia on Oct. 28. Her topic was "Working with the Slow Learner in Reading."

On Oct. 7, W. Owens Corder (Assoc Prof) spoke to the State School Board Association on teacher training in special education at Myrtle Beach. On Oct. 13, Dr. Corder spoke at a conference on Mental Health and Mental Retardation at Hilton Head. He outlined Clemson's plans for teacher education in special education.

On Nov. 2, Dr. Corder spoke to the State Elementary Principal's Association in Columbia on "New Trends in Special Education." Also, Jackie R. Harris (Assoc Prof) spoke to the State Elementary Principal's Association on "Behavioral Modification."

ENGLISH

Richard J. Calhoun (Alumni Prof) is the author of "James Dickey: The Expansive Imagination," in Modern American Poetry: Essays in Criticism, edited by Guy Owen, Deland, Fla., 1972.

Morse Peckham, Distinguished Professor of English and Comparative Literature at the University of South Carolina will talk on the topic, "Art and Disorder" at 3:30 on Nov. 29, in Daniel Auditorium. Professor Peckham is the author of Beyond the Tragic Vision (1962), Man's Rage for Chaos (1965), Art and Pornography (1969), Victorian Revolutionaries (1970), and the editor of The Triumph of Romanticism (1970).

FOOD SCIENCE

M. G. Johnson (Asst Prof) attended as an invited participant, a national Food Microbiology Research Conference held Nov. 9-10 at Allerton House, Monticello, Ill (Conference Center for the University of Illinois at Urbana.

HISTORY

R. L. Saunders (Asst Prof) reviewed Alonzo McLaurin, Paternalism and Protest: Southern Cotton Mill Workers and Organized Labor, 1875-1905, in Technology and Culture (July, 1972).

INDUSTRIAL MANAGEMENT

C. H. Whitehurst, Jr. (Prof and Hd) delivered a paper at the eighth annual meeting of the Southeastern Chapter of the Institute of Management Sciences entitled, "The Management Scientist in an Adversary Proceedings: Further Consideration of the Issues Raised by the ORSA Report on Professional Standards and Ethics Relative to the 1969 Safeguard (ABM) Debate."

C. H. Whitehurst, Jr. published a comment on "American Merchant Marine Policy" in the Sept., 1972 issue of the United States Naval Institute Proceedings.

James A. Turner, Jr. (Asst Prof) was elected President of the South Carolina Association of Accounting Instructors, effective Jan. 1, 1973.

Robert F. Zant (Asst Prof) presented a paper entitled, "The Computer in Business Planning" at the annual meeting of the Southeastern Chapter of the Institute of Management Sciences in Knoxville, Tenn., Oct. 12.

MATHEMATICAL SCIENCES

R. E. Haymond (Prof) recently presented a lecture on "Suggested Problems in Digital Modeling" at the 1972 Mathematics Lecture Series, West Georgia College, Carrollton, Ga.

Paul T. Holmes (Assoc Prof) published a paper entitled, "Additional Quasi-stationary Distributions for Semi-Markov Processes," which appeared in the Journal of Applied Probability, Vol. 9, No. 3, pp. 671-676 (1972). A co-author for this paper was David C. Flaspohler.

LANGUAGES

Harry E. Stewart (Prof and Hd) participated in the deliberations of the South Carolina Textbook Evaluating and Rating Committee in Columbia, Oct. 24-26.

MICROBIOLOGY

At the Southeast Regional Meeting of the American Society for Microbiology, held at the University of Florida, Gainesville, on Oct. 20-21, the following papers were presented by members of the Dept. of Microbiology:

"Thermal loading effects on bacterial populations of a non-polluted flowing stream," by D. S. Cherry (Zool, Grad Stu) and R. K. Guthrie (Prof and Assoc Dean).

"Dynamics of the bacteriophage populations of the bovine rumen," by M. J. B. Paynter (Assoc Prof and Hd), W. D. Dean (Grad Stu) and G. K. Reubish (Grad Stu).

"Hydrogen limited growth of Methane bacteria in chemostat culture," by F. M. DeWork (Baruch Fellow) and M. J. B. Paynter.

At this regional meeting, J. H. Bond (Assoc Prof) was installed as President of the South Carolina Branch of the American Society for Microbiology.

MUSIC

Edith B. Card (Instr) presented seven "mini-concerts" of dulcimer and Appalachian folk music to kindergarten and first grade students in Laurens County Schools. The concerts were sponsored by the South Carolina Arts Commission.

PHYSICS AND ASTRONOMY

A. L. Laskar (Assoc Prof) attended the "Seminar on Diffusion and Materials Engineering Congress" held at Cleveland, Ohio, Oct. 21-24.

J. R. Ray (Assoc Prof) had an article entitled, "Lagrangian Density for Perfect Fluids in General Relativity" published in the October issue of Journal of Mathematical Physics.

F. J. Keller (Assoc Prof), P. A. Steiner (Asst Prof), and R. C. Turner (Asst Prof), participated in the Fourth Southeastern Magnetic Resonance Conference held in Athens, Ga., Oct. 12-13. The conference accepted an invitation to hold their 1974 meeting at Clemson University. Dr. Turner will serve as chairman for the meeting.

INDUSTRIAL EDUCATION

A. F. Newton (Prof and Hd) was elected President-Elect of the Southeastern Industrial Arts Conference at the eleventh annual meeting in Atlanta, Oct. 13-14.

A. F. Newton was one of six educators who received the award for "dedicatior to keeping abreast of current developments in vocational-technical teacher education at the sixth national seminar for Vocational and Technical Teacher Education held in Columbus, Ohio, Oct. 23-25.

A. F. Newton was a participant in the National Leadership Workshop for New Directions in Industrial Arts Education, held in St. Louis, Mo., Oct. 25-28. This workshop is by invitation to 150 Industrial Arts Supervisors Teacher Educators across the nation.

POLITICAL SCIENCE AND SOCIOLOGY

W. C. Capel (Assoc Prof) has published a chapter (with others) on the Demographic and Sociological Implications of Addiction in New Orleans; Implications for Consideration of Treatment Modalities" in Drug Addiction: Clinical and Socio-Legal Aspects (Mount Kisco, New York: Futura Publishing Company), pp. 137-152.

RECREATION AND PARK ADMINISTRATION

Jack Stevenson (Assoc Prof) served on Sept. 28 as Co-Leader of a group of 110 students from Greenville County High Schools on a program designed to train students in Human Relations Skills and to develop plans for programs to be used in their high schools.

Jack Stevenson functioned as Group Consultant in Organization Development for the Program Staff of the Greenville YWCA on Sept. 29 and 30.

Jack Stevenson led a Training Program on Oct. 15 for City of Greenville Recreation and Parks Department, the topic was "Developing Goals and Objectives for your Community."

TEXTILE DEPARTMENT

E. I. Stearns (Prof and Hd) spoke to the Palmetto Section of the AATCC in Greenville on Oct. 28. His subject was "Plans for Clemson's Textile Department."

TEXTILE DEPARTMENT (Continued)

C. W. Roberts (Assoc Prof) presented a paper, "The Potential Utility of the 'ChemTec' Textual Materials in Undergraduate Chemistry Curricula," at the Middle Atlantic Association of Liberal Arts Chemistry Teachers Meeting, Hollins College, Va., Oct. 7.

ZOOLOGY

R. F. Walker (Asst Prof) presented a paper entitled, "The influence of thyroid hormone on circulation, metabolism, and body temperature control in heliotherms" at a regional meeting of the Division of Comparative Physiology and Biochemistry of the American Society of Zoologists which was held at the University of South Carolina, Oct. 26-28.

COLLEGE OF ENGINEERING

P. B. Zielinski (Assoc Prof, Engr Mech) has been appointed Chairman of the Clemson University Sea Grant Committee, effective Sept.-1.

CHEMICAL ENGINEERING

D. F. Bruley (Prof) attended the First Pacific Chemical Engineering Congress in Kyoto, Japan, Oct. 10-14. Two papers were presented with T. A. McCracken (Grad Stu), D. D. Reneau, H. I. Bicher and M. H. Knisely: "Simultaneous Diffusion of Oxygen and Glucose in Brain," and "Systems Studies of the Simultaneous Transport of Oxygen, Glucose and Carbon Dioxide in Human Brain."

Informal meetings were held to discuss the future of Biomedical Engineering in the United States and other countries, particularly Japan, and the practicality and effectiveness of engineering and medical research teams for solving medical problems.

A seminar on "Process Systems Simulation Through Mathematical Modeling" will be presented on Nov. 9 in the Earle Hall Auditorium. Appearing on the program will be J. N. Beard (Asst Prof - ChE), D. F. Bruley (Prof - ChE), S. S. Melsheimer (Asst Prof - ChE), and C. L. Smith (Assoc Prof ChE and Chairman, Computer Science Dept., LSU, Baton Rouge, La.).

INDUSTRIAL AND MUNICIPAL RELATIONS

The eighth annual seminar on "Air and Water Pollution Control" will be presented on Dec. 7-8. The seminar has earned a reputation for presenting the current "state of the art" in pollution control and annually attracts 100 or more engineers, scientists, management and operations personnel who are concerned with air and water pollution control.

INDUSTRIAL AND MUNICIPAL RELATIONS Continued

The two day seminar is co-sponsored by the Chemical Engineering Dept. and the Environmental Systems Engineering Dept. and by the South Carolina Pollution Control Authority and the Western South Carolina Section of the American Institute of Chemical Engineers.

The seminars co-directors are Dr. A. R. Abernathy (Assoc Prof, ESE) and Dr. F. C. Alley, P.E. (Prof, ChE), and the seminar coordinator is J. K. Johnson (Assoc Prof, Dir of Eng Ext).

ENGINEERING RESEARCH

S. F. Hulbert (Assoc Dean), S. J. Morrison (Univ of Hawaii) and J. J. Klawitter (Asst Prof) had a paper entitled, "Tissue Reactions to Three Ceramics of Porous and Nonporous Structures" published in the Journal Biomed. Mater. Res., 1972, 6:347-375.

CIVIL ENGINEERING

Subhash C. Anand (Assoc Prof) presented an invited paper entitled "Structural Design: An Interaction Program Between Education and Practice" at the American Society of Civil Engineers National and Environmental Engineering Meeting in Houston, Tex. on Oct. 18. This paper was based on an NSF Summer Institute directed by Dr. Anand at Illinois Institute of Technology, Chicago, Ill., from July 10 to Aug. 4.

Jackson S. Love (Asst Prof) and Rudolf E. Elling (Assoc Prof) recently received their professional registration licenses after meeting the requirements set forth by the State Board of Engineering Examiners.

Billy L. Edge (Assoc Prof) participated in a meeting of the Water Quality Committee of the Marine Technology Society to plan a one-week workshop of nationally recognized experts for evaluating the effects of ocean disposal of dredged material and industrial wastes. The meeting was held in Washington, D.C. on Oct. 12.

Herbert W. Busching (Assoc Prof and Hd) was an invited participant at a program, "Civil Engineering: History, Heritage and the Humanities," held Oct. 4-6 at Princeton University. The program was sponsored by the National Endowment for the Humanities and the Dept. of Civil and Geological Engineering at Princeton.

Jackson S. Love and Myron Spector (Asst Prof) presented papers to the 25th annual conference on Engineering in Medicine and Biology in Miami, Fla., on Oct. 4-5. Dr. Love's paper was entitled, "Turbulent Zones of the Heart." Dr. Spector's paper was entitled, "Morphological Development of the Mineral Phase in Human Calcified Tissue."

CALENDAR OF CAMPUS EVENTS

Nov.	15	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Dining Hall.
Nov.	15	Wed.	2:00 p.m.	Clemson University Speakers Bureau - John McCook Roots - Daniel Auditorium.
Nov.	15	Wed.	9:05 & 11:15 a.m.	Agronomy - Dr. J.B. Jones, Jr., Extension Agronomist, University of Georgia - "Interpretation of Soil and Plant Analyses for Prescribing Lime and Fertilizer Needs" -- A-203 P&AS Bldg.
Nov.	15	Wed.		Dept. of Chemistry, DuPont Lecturer, Prof. H. House, Georgia Institute of Technology - Rm. 131 Brackett Hall.
Nov.	16	Thurs.	1:25 p.m.	Dept. of Chemistry Seminar, DuPont Lecturer, Prof. H. House, Georgia Institute of Technology, Rm. 131 Brackett Hall.
Nov. 16- Nov. 18		Thurs.- Sat.	8:00 p.m.	Clemson Players - "Of Mice & Men" - Admission free and open to the public - Daniel Aud.
Nov.	17	Fri.	8:00 p.m.	Chamber Music Series 1972-73 Series III, Galliard Woodwind Quintet - free.
Nov. 17- Nov. 19		Fri.- Sun.		Clemson Forensic Union - Varsity Debate - Clemson vs. Wake Forest at Winston-Salem, N.C.
Nov.	18	Sat.	1:30 p.m.	Varsity Football at N.C. State.
Nov.	18	Sat.		Declamation Contest.
Nov.	18	Sat.		Central Dance Association Concert - Littlejohn Coliseum.
Nov. 18- Dec. 17		Sat.- Sun.		Architectural exhibit - "Dutch Graphic Art" - Lee Hall Gallery.
Nov.	18	Sat.	10:00 a.m.	Rifle Team at N.C. State.
Nov.	20	Mon.	8:00 p.m.	Man--The Measure of All Things - Room 200, Hardin Hall.
Nov.	20	Mon.	8:00 p.m.	Spanish Feature Film (English sub-titles) - Daniel Theatre.
Nov.	21	Tues.	8:00 p.m.	Protest and Communication - Room 200, Hardin Hall.
Nov.	22	Wed.		Thanksgiving holidays begin after last class.
Nov.	22	Wed.	7:00 a.m.	Ft. Hill Clemson Club Quarterback Breakfast - Harcombe Dining Hall.

CALENDAR OF CAMPUS EVENTS Continued

Nov. 23- Nov. 25		Thurs.- Sat.		International Student Retreat.
Nov.	25	Sat.	1:30 p.m.	Varsity Football - South Carolina at Clemson.
Nov.	27	Mon.		Classes resume.
Nov.	28	Tues.		Varsity Basketball - Georgia Tech at Clemson.
Nov.	30	Thurs.	2:00 p.m.	CU Speakers Bureau - Julian Bond - Tillman Hall Auditorium .
Nov.	30	Thurs.		Debate - Oxford University, England - Daniel Auditorium.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 8 December 1, 1972

FAMILY RELATIONS CONFERENCE TO BE HELD IN FEBRUARY

"The Ties That Bind: Flexibility and Strengths in the American Family" will be the theme of the annual meeting of the South Carolina Council on Family Relations to be held at the Wade Hampton Hotel February 2-3.

Dr. Eleanore Luckey, professor and head of the department of Child Development and Family Relations at the University of Connecticut, will be the principal speaker. Dr. Luckey, an eminent psychologist whose area of specialization is Family Relationships, has just completed a term as president of the National Council on Family Relations.

The conference will also feature discussion groups on a variety of subjects relating to the flexibility and strengths in the American family.

Registration information may be obtained from the office of the South Carolina Council on Family Relations at 2414 Bull Street, Columbia, S.C. 29201.

TEN CLEMSON ARTISTS SELECTED FOR GUILD EXHIBIT

Works by 10 Clemson University artists have been selected for showing in the 22nd annual exhibition of the Guild of South Carolina artists.

Of the 418 original entries for the show which runs through December 7 at the Greenville County Museum of Art, only 102 were selected.

Four College of Architecture professors won special awards. John Acorn won the award presented by Mr. and Mrs. Roger Milliken for his sculpture "Industrial Torso." The Saco Lowell award went to Thomas McPeak for his acrylic "Grey and Red Landscape."

Sam Wang received the First Federal Savings and Loan Association merit award for his photoserigraph "Figure in Landscape," and Robert Hunter received the William Rosenfeld Insurance Co. award for "S-Seven," a mixed media work.

Other College of Architecture winners are Prof. Ireland Regnier; Prof. Tom Turner; Ron Porter, who is coordinator of educational media and exhibits; and fine arts graduate students Jim Davis of Anderson (pottery), Mark R. Hudson of Randallstown, Md., (painting), and Pam Wright of Greenville (painting and print-making).

Greenville County Museum of Art hours are 9 a.m. - 5 p.m. weekdays; 9 a.m. - 1 p.m. Saturday, and 2 - 6 p.m. Sunday.

MINUTES OF THE MEETING OF THE FACULTY SENATE, OCTOBER 10, 1972

The meeting was called to order at 4:20 p.m. by President Rogers. The minutes of the September meetings were corrected and approved. President Rogers announced that since the last meeting Mr. S. L. Sheehee had resigned from Clemson and would not speak to the Faculty Senate as scheduled.

President Rogers informed the Senate that there had been some questions raised concerning appointment of Faculty Senate members to University committees, and that some appointments had been made which did not follow the new Faculty Manual.

After considerable discussion, Professor Fulton presented the following motion:

"Be it resolved, that the membership of all councils and standing committees of the University reflect the stipulations of the Faculty Manual."

After a second, the motion carried with one negative vote.

President Rogers passed out copies of an evaluation form for academic personnel which had been developed by a University-wide committee. Senators were requested to review the form and send any comments to President Rogers. There were questions raised as to the purpose of the form, how the form would be implemented, who would make the evaluations, and who would see the completed evaluation.

In regards to action from the Senate requesting the administration to add two days to the fall semester to replace voting days, President Rogers stated that Vice President Hurst had referred the request to the University Schedule Committee.

President Rogers informed the Senate that since there has been some concern regarding certain aspects of salaries at Clemson, attention is called to Section V of the 1971 Clemson University Self Study, particularly Tables 16-20. Dean Hurst has agreed to meet with the Welfare Committee concerning possible up-dating, extension, and clarification of the information contained in the Self Study.

Professor Wallenius, reporting on the status of the report on the Retirement System, stated that the committee is obtaining retirement data from several sources, and will have a final report at an early date.

Professor Fulton reported that the Student Relations Committee appointments have been completed. On the committee for this academic year are John Moon, F. M. Young, Jr., Susan Delony, W. F. Steirer, Jr. and John Fulton.

In reporting on activities of the Welfare Committee, Professor West stated that the committee had met with Social Security representatives, and would have a report at a later date concerning the benefits available to faculty members.

MINUTES OF THE MEETING OF THE FACULTY SENATE, OCTOBER 10, 1972 (Continued)

Professor C. O. Shuler has been invited to the next Senate meeting to discuss health care programs.

Professor Cross, member of the Undergraduate Council, reported to the Senate that a sub-committee of the Council is studying a new form for student evaluation of faculty members. If adopted the evaluations would be printed and published.

The following motion was presented by Professor Baron:

"Whereas there is a permanent University Traffic and Parking Committee, and whereas there are faculty members in Traffic and Transportation Engineering within the Department of Civil Engineering who have an expertise in the fields of traffic engineering and parking, the University Faculty Senate requests that the Traffic and Parking Committee be reconstituted to include a permanent member from the Traffic and Transportation Engineering Faculty. Said member shall be appointed by the President upon the advice of the head of the Department of Civil Engineering.

Further, if the reorganization of the Traffic and Parking Committee cannot be accomplished in the next period of appointments, then the Faculty Senate recommends that until such time as the committee can be changed the President appoint a faculty member from Traffic and Transportation Engineering as one of the two faculty appointments.

Further, the University Senate recommends that until a new Traffic and Parking Committee is appointed, the President appoint to the present committee a faculty member from Traffic and Transportation Engineering to act as a consultant to said committee."

After a second, the motion passed with two negative votes.

In other new business, Professor Rimkus pointed out that the changeover in health insurance has caused inconveniences to several faculty members, particularly in regards to persons away from the campus during the summer. This was referred to the Welfare Committee for study.

There was a general discussion of the parking situation on campus. There were numerous questions raised regarding the number and assignment of reserved parking spaces. It was pointed out that new building will necessitate loss of approximately 800 parking spaces unless new areas are provided.

The meeting was adjourned at 6:10 p.m.

Absent from the meeting: A. R. Abernathy and K. E. Carpenter.

MINUTES OF THE UNIVERSITY EXTENSION COUNCIL, SEPTEMBER 22, 1972

Dean Sam M. Willis presided over an organizational meeting of the University Extension Council in the conference room of E103 Martin Hall on Friday afternoon, September 22, 1972 at 4:00. The purpose of the Council is set forth in the Faculty Handbook:

> This council consists of the Dean of University Extension, ex officio, the President of the Extension Senate, the President of the Extension Specialists Association, the President of the Extension County Agents Association, the President of the Extension Home Economics Association, and one representative from each academic college nominated by the dean of the college and appointed by the Dean of the University for a term of three years. The Dean of University Extension will serve as chairman.
>
> The council advises the Dean of University Extension on all policies and regulations pertaining to the total University extension program.

In addition to Dean Willis the committee members, all of whom were present, are Carl W. Ackerman, representing Extension Specialists' Association; N. R. Bauld, Engineering; J. H. Evans, County Agents' Association; H. R. Holman, Liberal Arts, secretary; G. D. Kessler, Forestry; Stanley Lukawecki, Physical, Mathematical and Biological Sciences; Carolyn Meares, Extension Home Economists' Association; Myrton Packer, Education; F. T. Simon, Industrial Management and Textile Science; M. A. Teklets, Nursing; T. B. Tillman, Jr., Extension Senate; George Von Tungeln, Agricultural Sciences; and J. R. Washburn, Architecture.

The first order of business for the committee is the Continuing Education Unit, called CEU, on December 31, 1971, made compulsory for all college members of the Southern Association under Standard 9 of the Southern Association:

> Non-credit programs should be appropriately identified and recorded by means of the continuing education unit (CEU)
>
> The continuing education unit should be used as the basic instrument of measurement for an individual's participation in and an institution's offering of non-credit classes, courses, and programs. A CEU is defined as ten contact hours of participation in an organized continuing education (adult or extension) experience under responsible sponsorship, capable direction, and qualified instruction. Information and guidelines on CEU may be obtained by writing to the Executive Secretary of

the Commission. The CEU records will serve as a part of the full-time equivalent student account for the institution.

After distribution of copies of Questions and Answers about the Continuing Education Unit, General Information on the Continuing Education Unit, and A Working Paper on the Continuing Education Unit (from the University System of Georgia, 1972), Dean Willis appointed N. R. Bauld, J. T. Simon, and George Von Tungeln, chairman, an ad hoc committee to explore in depth the problems most immediately involved in implementing this new policy. The ad hoc committee will report to the committee as a whole at the next meeting, Friday, November 17, at 2:00.

During the preliminary discussion of obvious implications for funding, formulas involving FTEs, and possible aid in such matters as evaluating tech school transcripts, Dr. Packer raised the question of the authority of a Southern Association committee to make CEUs compulsory. Dean Willis told the committee that it is free to make whatever recommendations it believes indicated, both in this and any other matter brought before it.

The minutes, it was agreed, will be published in the Clemson Newsletter.

The meeting was adjourned at 3:40.

NEWSLETTER DEADLINES ANNOUNCED FOR DECEMBER

Two issues of the Clemson Newsletter will be published in December.

The December 15 issue will be published according to the usual schedule. All items for this issue must be submitted by December 5, the normal deadline for the mid-month issue.

The January 1 issue will be published early for distribution on December 22, the last work day prior to Christmas. The deadline for items to appear in this issue will be December 10.

Regular publishing schedules will be resumed in January.

MINUTES OF THE MEETING OF THE EDUCATIONAL COUNCIL, NOVEMBER 7, 1972

Present: Robert G. Edwards, presiding; Victor Hurst, Walter T. Cox, Stanley G. Nicholas, Melford A. Wilson, H. Morris Cox, J. W. Gordon Gourlay, Claud B. Green, Luther P. Anderson, Geraldine Labecki, Harold F. Landrith, Harlan E. McClure, W. H. Davis McGregor, Samuel F. Hulbert, Ernest B. Rogers, A. E. Schwartz, Thomas D. Efland, K. N. Vickery, Henry E. Vogel, S. M. Willis, E. N. Tyndall and A. W. Rigsby, Secretary.

1. Minutes

The minutes of the meeting of October 2, 1972, were approved as submitted.

2. Curriculum Changes

Statement and Recommendation: The Undergraduate and Graduate Councils recommend additions, deletions and changes to the curricula, effective when designated on the appropriate request for approval forms as follows:

I. COLLEGE OF AGRICULTURAL SCIENCES

(A) New Undergraduate Courses

AnSc 412	Horse Science (Replaces AnSc 407 & 409)	3 cr. (2 and 3)
EnSc 471	Man and His Environment (Replaces EnH 471)	2 cr. (2 and 0)
EnSc 472	Environmental Control and Planning (Replaces EnH 472)	2 cr. (2 and 0)
Gen H 302	Genetics	4 cr. (3 and 3)
PS 203	Avian Science (Replaces PS 201)	2 cr. (2 and 0)

II. COLLEGE OF ARCHITECTURE

(A) New Undergraduate Courses

Arch 485	Health Care Delivery Systems and Health Care Facilities Seminar	3 cr. (3 and 0)
Arch 488	Health Care Facilities Programming Techniques	3 cr. (2 and 3)
Vis 490	Directed Studies	1-5 cr.

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, NOVEMBER 7, 1972 (Continued)

College of Architecture (Continued)

(B) New Graduate Courses

Arch 685	Health Care Delivery Systems and Health Care Facilities Seminar	3 cr. (3 and 0)
Arch 688	Health Care Facilities Programming Techniques	3 cr. (2 and 3)
Arch 886	Health Care Facilities Components and Functions	3 cr. (2 and 3)
CRP 821	Intergovernmental Relations in the Planning Process	3 cr. (3 and 0)
CRP 865	Planning Studio IV	3 cr. (2 and 12)
CRP 885	Capital Improvements Programming	3 cr. (3 and 0)
Vis 690	Directed Studies	1-5 cr.

III. COLLEGE OF EDUCATION

(A) New Undergraduate Courses

AgEd 423	Curriculum (Replaces AgEd 422)	2 cr. (2 and 0)
AgEd 425	Teaching Agricultural Mechanics (Replaces part of AgEd 422)	2 cr. (1 and 3)
InEd 103	Woodworking II (Replaces InEd 202)	2 cr. (1 and 3)
InEd 105	Machining Practices (Replaces InEd 305)	3 cr. (1 and 6)
InEd 208	Electricity (Replaces InEd 303)	3 cr. (2 and 3)
InEd 452	Advanced Projects	1-6 cr.

(B) New Graduate Courses

AgEd 623	Curriculum	2 cr. (2 and 0)
AgEd 625	Teaching Agricultural Mechanics	2 cr. (1 and 3)
AgEd 736	Internship: Teaching	3 cr. (1 and 6)
Ed 776	College Teaching	3 cr. (3 and 0)

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, NOVEMBER 7, 1972 (Continued)

College of Education (Continued)

(C) Change in Credit

InEd 101	Introduction to Industrial Education	2 cr. (1 and 2)

(D) Change in Title and Course Description

InEd 416	Management & Operation of Industrial Educ.	3 cr. (2 and 2)
InEd 441	Comprehensive Lab. Field Experience	2 cr. (1 and 3)

IV. COLLEGE OF ENGINEERING

(A) New Undergraduate Courses

BioE 402	Medical Applications of Engr. Science	3 cr. (3 and 0)
BioE 450	Special Topics in Biomedical Engr. 1-4 cr.	(0-4 and 12-0)
ChE 431	Cryogenic Engineering	2 cr. (2 and 0)
ChE 456	Applications of Optimization Theory	3 cr. (3 and 0)
ChE 460	Introd. to Occupational Safety and Health	3 cr. (3 and 0)
ChE 461	Industrial Hygiene Analysis & Instrument.	3 cr. (2 and 3)
ChE 462	Air Resources Engineering	3 cr. (3 and 0)
CE 421	Advanced Building Materials Selection	3 cr. (3 and 0)
CT 410	Introd. to Digital Control	3 cr. (3 and 0)
E&CE 420	Power Systems Analysis I	3 cr. (3 and 0)
E&CE 424	Power Systems Analysis II	3 cr. (3 and 0)
Engr 110	Engineering Problems Workshop I	1 cr. (0 and 2)
Engr 120	Engineering Problems Workshop II	1 cr. (0 and 2)
Engr 220	Technology in the Modern World	3 cr. (3 and 0)
ESE 410	Radioassay Techniques for Environmental Monitoring	6 cr. (5 and 30)
MatE 450	Special Topics in Materials Engr. 1-4 cr.	(0-4 & 12- 0)
ME 450	Ventilation Design and Operation	3 cr. (2 and 3)
ME 451	Control of Physical Stresses	3 cr. (3 and 0)
ME 452	Safety Engineering	3 cr. (2 and 3)

(B) New Graduate Courses

CT 610	Introd. to Digital Control	3 cr. (3 and 0)
CT 810	Modern Control Theory I (Replaces ME 850)	3 cr. (3 and 0)
CT 811	Modern Control Theory II (Replaces ME 865 & ECE 810)	3 cr. (3 and 0)

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, NOVEMBER 7, 1972 (Continued)

College of Engineering (Continued)

CT 815	Nonlinear Controls (Replaces ME 866 & ECE 814)	3 cr. (3 and 0)
CT 820	Digital Control I	3 cr. (3 and 0)
CT 821	Digital Control II (Replaces ECE 809)	3 cr. (3 and 0)
CT 910	Adaptive and Optimal Control (Replaces EE 811)	3 cr. (3 and 0)
ChE 814	Applied Numerical Methods in Process Simulation	3 cr. (3 and 0)
ChE 818	Polymer Processing	3 cr. (3 and 0)
CE 817	Mass Transit Planning	3 cr. (3 and 0)
E&CE 807	Power System Analysis Techniques	3 cr. (3 and 0)
E&CE 808	Electromechanical Energy Conversion	3 cr. (3 and 0)
E&CE 817	Power System Transient Analysis	3 cr. (3 and 0)
ESE 847	Pollution of the Aquatic Environment Lab.	1 cr. (0 and 3)
ME 807	Mechanical Systems I	3 cr. (3 and 0)
ME 808	Mechanical Systems II	-3 cr. (3 and 0)
ME 809	Thermal Systems I	3 cr. (3 and 0)
ME 810	Thermal Systems II	3 cr. (3 and 0)
SE 890	Special Topics in Systems Engr.	1-3 cr. (3 and 0)

(C) The name of the Technical Operations Program to be changed to the Engineering Technology Program with the degree awarded to be changed from Bachelor of Science Degree in Technical Operations to Bachelor of Science Degree in Engineering Technology.

(D) Change in Theory Hour

ESE 846	Pollution of the Aquatic Environment (From 3 cr. (2 and 3)	3 cr. (3 and 0)

(E) Deletions from Course Offerings

ME 863	Advanced Physical System Analysis I
ME 864	Advanced Physical System Analysis II

(F) Change in Course Number

CE 460	Civil Engr. Systems Analysis (Was CE 360)	3 cr. (2 and 3)

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, NOVEMBER 7, 1972 (Continued)

V. COLLEGE OF FOREST AND RECREATION RESOURCES

(A) New Undergraduate Courses

For 315	Forest Ecology	2 cr. (2 and 0)
RPA 407	Methods of Environmental Interpretation	3 cr. (2 and 3)

(B) New Graduate Courses

For 603	Forest Soils Seminar	1 cr. (1 and 0)
RPA 607	Methods of Environmental Interpretation	3 cr. (2 and 3)
RPA 709	Special Problems	1-3 cr. (1-3 and 0)
RPA 710	Current Issues in Recreation	1 cr. (1 and 0)

VI. COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

(A) New Undergraduate Courses

Econ 399	Senior Seminar in Economics	Var.cr. (1-3)
IM 421	Consumer Behavior	3 cr. (3 and 0)

(B) New Graduate Course

EC 808	Seminar in Public Employee Labor Rel.	3 cr. (3 and 0)

(C) Change in Title and/or Course Description

IM 308	Principles of Marketing	3 cr. (3 and 0)
IM 401	Quantitative Marketing Analysis	3 cr. (3 and 0)
IM 410	Marketing Research I	1 cr. (1 and 0)
IM 411	Marketing Research II	2 cr. (2 and 0)
IM 412	Marketing Management	3 cr. (3 and 0)
IM 413	Marketing Communications	3 cr. (3 and 0)

(D) Change in Credit

Text 122	Introduction to Textiles	2 cr. (1 and 3)

VII. COLLEGE OF LIBERAL ARTS

(A) New Undergraduate Courses

Engl 334	The Structure of Poetry	3 cr. (3 and 0)
Engl 441	Continental Fiction in Translation (Replaces Engl 223)	3 cr. (3 and 0)

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, NOVEMBER 7, 1972 (Continued)

College of Liberal Arts (Continued)

(A) New Undergraduate Courses -- continued

Hist 431	Cultural Influence of China on Europe	3 cr. (3 and 0)
PolSci 405	American Presidency	3 cr. (3 and 0)
PolSci 435	Administration of Justice	3 cr. (3 and 0)
Psych 101	Orientation to Psychology	1 cr. (1 and 0)
Psych 301	Industrial Psychology	3 cr. (3 and 0)
Psych 425	The Psychology of Aging	3 cr. (3 and 0)
Span 421	The Spanish American Novel	3 cr. (3 and 0)
Span 422	The Contemporary Spanish American Novel	3 cr. (3 and 0)

(B) New Graduate Courses

Pol Sci 622	Problems of Public Administration	3 cr. (3 and 0)
PolSci 623	Municipal Administration	3 cr. (3 and 0)
Psych 622	Cross Cultural Studies in Developmental Psychology	3 cr. (3 and 0)
Psych 690	Special Topics in Psychiatry and Neurology	3 cr. (3 and 0)
Psych 699	Current Research Seminar	3 cr. (3 and 0)

VIII. COLLEGE OF PHYSICAL, MATHEMATICAL AND BIOLOGICAL SCIENCES

(A) New Undergraduate Courses

Ch 310	Elementary Chemical Instrumentation	3 cr. (1 and 6)
Ch 330	Introduction to Physical Chemistry	3 cr. (3 and 0)
Math H452	Linear Programming	3 cr. (3 and 0)
Micro 100	Microbes and Human Affairs	1 cr. (1 and 0)
Micro 400	Public Health Microbiology	3 cr. (3 and 0)
Zool 110	Integrated Basic Science as Related to ManI (Replaces Nurs 105)	4 cr. (3 and 2)
Zool 111	Integrated Basic Science as Related to ManII (Replaces Nurs 106)	4 cr.(3 and 2)
Zool 421	Advanced Invertebrate Zoology	4 cr. (3 and 3)
Zool 474	Invertebrate Endocrinology (Replaces Zool 408)	3 cr. (2 and 3)

(B) New Graduate Courses

Bot 701	Evolutionary Botany for Teachers	4 cr. (3 and 3)
Bot 702	Modern Botanical Concepts for Teachers	2 cr. (2 and 0)
Math 732	Projective Geometry	3 cr. (3 and 0)
Math 771	Numerical Methods in Secondary School Math	3 cr. (3 and 0)
Math 781	History of Mathematics	3 cr. (3 and 0)
Math 783	Theory of Numbers	3 cr. (3 and 0)

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, NOVEMBER 7, 1972 (Continued)

College of Physical, Mathematical and Biological Sciences (Continued)

(B) New Graduate Courses -- continued

Math 791	Mathematical Problems in the Curriculum	3 cr. (3 and 0)
Math 806	Nonparametric Statistics	3 cr. (3 and 0)
Math 809	Time Series Analysis, Forecasting & Control	3 cr. (3 and 0)
Math 988	Special Topics in Operations Research	1-3 cr. (1-3 and 0)
Micro 991	Doctoral Research	Credit to be arranged
Phys 715	Experimental Physics for High School Teachers I	4 cr. (2 and 4)
Phys 716	Experimental Physics for High School Teachers II	4 cr. (2 and 4)
Zool 700	Modern Developments in Zoology for High School Teachers (Replaces Biol 700)	3 cr. (3 and 0)
Zool 701	Man's Impact on Ecology (Replaces Biol 800)	3 cr. (3 and 0)
Zool 702	Field Methods in Zoology for High School Teachers (Replaces Biol 750)	3 cr. (2 and 3)
Zool 845	Advanced Cell Physiology	4 cr. (3 and 3)

(C) Change in Name, Title or Course Description

CompSc 210	Digital Computation and Numerical Methods for Engineers	3 cr. (3 and 0)
Astr 704	Astronomy for High School Teachers (Replaces Phys 704)	3 cr. (3 and 0)

(D) Change in Credit

Micro 411	Pathogenic Bacteriology	4 cr. (3 and 3)
Bioch 810	Biochemical Techniques	1-3 cr. (0 and 3-9)

Action: Approved.

SCHOLARSHIPS AND AWARDS COMMITTEE MEETING, OCTOBER 9, 1972

The second meeting of the Scholarships and Awards Committee for 1972-73 was held in Room E-103 Martin Hall at 3:30 P.M., October 9, 1972.

Dean Coakley reported for a sub-committee appointed to evaluate nominees for Who's Who Among Students in American Universities and Colleges. It was moved and seconded that the 30 students submitted by the sub-committee be approved and that these be nominated to Who's Who in American Universities and Colleges for approval. The motion carried unanimously.

The chairman thanked the sub-committee for its efforts and reminded members of the Scholarships and Awards Committee that Who's Who would release the names of those students receiving this recognition.

MINUTES OF THE HONORS COUNCIL MEETING, NOVEMBER 6, 1972

The first meeting of the Honors Council for 1972-1973 was held in Room E-103, Martin Hall, November 6, 1972 at 3:30 P.M. W. C. Godley (Chairman), B. E. Billiland, J. L. Stevenson, P. B. Burt, W. A. Phillips, J. H. Adair, G. D. Halstead, Jr., Kay Wyatt Brown, C. B. Green, and K. N. Vickery were present.

Several new members were welcomed to the Council, the new members are W. C. Godley (Chairman), J. H. Adair, W. A. Phillips, W. C. Whitten, Kay Wyatt Brown, and G. D. Halstead, Jr.

The minutes of the June 16, 1972 meeting were approved.

Dean Claud B. Green discussed the Honors Program at Clemson University and outlined the responsibilities of the Honors Council.

Dr. Godley gave a brief report on the meeting of the National Collegiate Honors Council in San Francisco, Oct. 19-21. He reported that the Southern Region plans to hold a regional meeting in Atlanta, Ga. in the spring of 1973. Students will be encouraged to attend this meeting.

Each college representative was asked to review the section of the Student Handbook pertaining to their college and to submit suggestions for revision to the Chairman by the end of the current semester.

The meeting adjourned at 4:25 P.M.

MINUTES OF THE MEETING OF THE UNIVERSITY LIBRARY COMMITTEE, OCT. 5, 1972

Present: R. E. Knowland, (Chairman), William E. Bachop, William Baron, R. J. Calhoun, Elizabeth Galloway, Opal S. Hipps, G. E. Howard, D. B. Stafford, J. W. G. Gourlay (Secretary), Robert L. Wiggins, Systems Analyst, Computer Center (Guest).

1. Mr. Knowland introduced Dr. G. E. Howard who will be representing the College of Forest and Recreation Resources at those library committee meetings which Dr. Schoenike cannot attend during the current semester.

2. Minutes of the meeting of September 5 were approved with one addition to item 4c Resolution, "It is particularly important that sufficient funds be made available so that the library can reach its goal of 800,000 volumes as quickly as is practicable."

3. Mr. Gourlay reported

   a. That during the summer months hundreds of books had been moved into storage in the basement because of lack of shelf space for new acquisitions on the second floor.

   b. That a committee of professional librarians, Miss Sophia Sullivan, Chairman was studying the subject of faculty status for professional librarians.

   c. That recently he had investigated an electronic book detection system which is in operation at the medical library of Duke University.

4. Mr. Robert Wiggins, Systems Analyst, Computer Center reported on a meeting of representatives from Southeastern Research Libraries which he and Mr. Gourlay attended in Chapel Hill on October 4. The purpose of the meeting was to discuss the operation of the Ohio College Library Center and the problems and costs of replicating that system in the Southeast.

5. Time of next meeting - Thursday, November 2, 1972, at 3:30 P.M.

MINUTES OF AUDIO-VISUAL COMMITTEE MEETING, SEPTEMBER 26, 1972

The eighth meeting of the Audio-Visual Committee was held on Sept. 26 at 3:30 p.m. in the lounge of Strode Office Tower. Those present were William Beckwith, Tom Douglass, Harry Durham, Revis Frye, Opal Hipps, Mike Hubbard, Mike Jutras, James Veitenheimer and Sam Wang.

Chairman Jutras suggested that the September meeting be designated as the month for election of committee officers.

Chairman Jutras then appointed a sub-committee to explore guidelines for acquiring audio-visual software for a central loan facility. To that sub-committee he appointed Tom Douglass as Chairman and Revis Frye and Harry Durham as members.

Sam Wang asked that his sub-committee's report on audio-visual academic activities be added to the September minutes for publication. The committee accepted the suggestion.

Durham indicated that the list of Communication Center services was being prepared and would be distributed for committee reaction and approval next week.

Chairman Jutras suggested that the committee meet next month in the Communications Center and that a tour be conducted for new members.

The time of the fall meetings was discussed and the group elected to continue meeting on the second Tuesday of each month at 3:00 p.m. The next meeting was then set for October 10.

Following all the old business, Chairman Jutras opened the floor to the election of officers for this year. Sam Wang nominated Mike Jutras to serve again as Chairman and Tom Douglass nominated Sam Wang for Chairman. Revis Frye moved that the nominations be closed, seconded by Opal Hipps. The voting was done on written ballot with the secretary tabulating the votes. Jutras was re-elected Chairman for the 1972-73 academic year. For secretary Tom Douglass was nominated by Harry Durham and Betty Watkins was nominated by Tom Douglass. Revis Frye moved that the nominations be closed, Mike Hubbard seconded. Betty Watkins was elected secretary for 1972-73 academic year. The meeting was adjourned at 4:20 p.m.

PROPOSAL FROM SUB-COMMITTEE ON BROADCASTING AND AUDIO-VISUAL ACADEMIC COURSES

1. That a course in the effective preparation and use of audio-visual mediums in education and public presentation be developed as soon as possible.

2. That such a course be inter-curricular in scope, and consist of a lecture portion on the theory, psychology, and potentials of clear and persuasive presentation, and a studio or lab portion in the preparation and presentation of audio-visual materials, demonstrations and critiques.

3. That it be offered as a three or four credit hour undergraduate course with a corresponding graduate level number.

4. That such a course be offered each summer and at least one semester per year.

5. That College of Education and the University Communications Center collaborate in the development and implementation of this course, providing or sharing teaching personnel, space and lab facilities.

6. That this course be initiated not later than spring 1974.

7. This sub-committee further recommends that the University Student Union officials consider the inclusion of extra curricular classes and work shops in photography, film making, arts and crafts, in student union activities.

MINUTES OF AUDIO-VISUAL COMMITTEE, OCTOBER 10, 1972

The October meeting of the University Audio-Visual Committee was held in the film previewing room of the Plant and Animal Science Building. The following members of the committee were present: M. W. Jutras, Revis M. Frye, William F. Beckwith, Thomas E. Douglass, Harry Durham, Mary Joyce Kelley, Betty P. Watkins.

Chairman Jutras called for sub-committee reports. Harry Durham reported for the sub-committee on University Communications Center Services. He presented each member with a summary of services provided by the University Communications Center. He asked for review and comments by committee members before the November meeting. Mr. Durham next presented the committee with a proposed audio-visual survey form. All committee members were asked to review the form, add comments and return to him.

Chairman Jutras then called for a report from the sub-committee on Audio-Visual Software. This committee composed of Douglass, Frye and Durham will be prepared to report at the November meeting.

MINUTES OF AUDIO-VISUAL COMMITTEE, OCTOBER 10, 1972 (Continued)

After completion of old business, Chairman Jutras turned the meeting over to Communications Center director, Harry Durham. Durham presented an organizational chart indicating services in the three following areas: Photographic, Broadcasting and Instructional. Mr. Durham asked Mrs. Lily Hall to report on activities related to FM Educational Radio Network. The center is currently producing 10 programs a week. Mr. Durham then led the group on a tour of the center facilities.

Following the tour, Mr. Durham demonstrated a new self-instructional device with the advantage of sound and visual synchronization.

Chairman Jutras called for new business. There being no new business, the meeting was adjourned at 4:00 p.m.

UNDERGRADUATE STUDIES

Claud B. Green (Dean) has been appointed Chairman of the Conference Site Committee of the National Association of Summer Sessions.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

J. C. Hite (Assoc Prof) and Ellen J. Hall (Grad Res Asst) are co-authors of an article entitled, "The Reactionary Evolution of Economic Thought in Antebellum Virginia," in the Oct. 1972 issue of The Virginia Magazine of History and Biography.

BIOCHEMISTRY

J. M. Shively (Prof and Hd) presented a seminar entitled, "Biochemistry, The Electron Microscope and the Cell," to the faculty and students of the Science Dept. of Lander College, Greenwood, on Nov. 15.

D. M. Henricks (Assoc Prof) presented a seminar entitled, "Biochemical Regulation of Reproduction" to the faculty and students of the Biology Dept. of Furman University on Nov. 14.

J. K. Zimmerman (Asst Prof) presented a seminar at the University of Georgia, "The Scanning Gel Chromatograph - Computer Simulations and Experimental Data," Nov. 6.

BIOCHEMISTRY (Continued)

J. K. Zimmerman presented guest lectures at Central Wesleyan College, Sept. 30 and Bob Jones University, Nov. 10 on "The Molecular Basis for Metabolic Diseases."

Mrs. Oya Yazar (Dr. G. L. Powell, research advisor) presented a paper entitled, "Cyclopropane Fatty Acid Biosynthesis in Relaxed and Stringent Strains of Escherichia coli" at the annual regional Lipid Conference held in Gatlinburg, Nov. 2-3.

A paper "Stringent and Relazed Control of Phospholipid Metabolism in Escherichia coli" by N. G. Golden and G. L. Powell has appeared in J. Biol. Chem. 247 (1972) 6651-6658.

CHEMISTRY

The following papers were presented by members of the Chemistry Dept. at the 24th Southeastern Regional Meeting of the American Chemical Society, held Nov. 2-4, in Birmingham, Ala.

N. P. Marullo (Assoc Prof), "S.C.F.M.O. Calculation of Rotational Barriers of Some n-Stabilized Cations."

N. P. Marullo, W.E. McNew (former Grad Stu) and L. C. Keifer (Grad Stu), "Pyrolysis of Amidines. A Novel Conversion of Amines to Olefins."

J. R. Bacon (former faculty member), W. J. Lewis (Grad Stu) and C. D. Elrod (Grad Stu), "An Economical Square-Wave Polarograph with Application to Anodic Stripping Voltrametry."

J. F. Allen (Assoc Prof), "An Audio-Tutorial Course in General Chemistry."

N. P. Marullo also presided at a session on "Theoretical Organic Chemistry and Structural Determination."

J. F. Allen contributed a paper, "Audio-Tutorial Program in General Chemistry - ($5.00 per day)," at the Audio-Tutorial Congress held at the University of South Carolina, Nov. 3-4. Dr. Allen also chaired a session, "Audio-Tutorial Programs in the Pure Sciences."

Recent Publications: H. C. Odom (former Grad Stu) and A. R. Pinder (Prof), "Synthesis of ($\pm$)-7-epi-Nootkatone and Partial Synthesis of Valerianol. Structure of Nardostachone," J. Chem. Soc., Perkin Transactions I, 2193 (1972).

CHEMISTRY (Continued)

D. Harrington (Grad Stu), J. Weston (Undergrad), J. Jacobus (Assoc Prof), and K. Mislow (Princeton Univ), "Mechanism of Reactions of Sulphonium Salts with Organolithium Reagents," Chem. Commun., 1079 (1972).

CIVIL ENGINEERING

Myron Spector (Asst Prof) visited the Manned Spacecraft Center, Houston, Texas, Oct. 30-Nov. 2, to continue some research initiated this summer. Dr. Spector is utilizing ion beam etching techniques in conjunction with scanning Electron Microscopy to study human red blood cell structure. These techniques are being developed in part to detect cell changes accompanying disease or caused by spaceflight.

Billy L. Edge (Assoc Prof) has been selected for participation in the Dredge Spoil Workshop sponsored by the Water Quality Committee of the Marine Technology Society, the Environmental Protection Agency, Navy, the National Oceanic and Atmospheric Administration and the Army Corps of Engineers to be held Nov. 27-30 at the New York Ocean Science Laboratory, Montauk, New York. Dr. Edge has been invited to participate in the session covering analytical methodology (physical techniques).

Herbert W. Busching (Assoc Prof and Hd) presented a paper entitled, "Prefabricated, Surface-Bonded, Concrete Block Panels" to the ASCE-EMD Specialty Conference in Pittsburgh, Pa., Nov. 12-14. This paper was co-authored by James G. Goree (Assoc Prof, EM) and Donald H. Hamilton (Grad Stu, CE).

COLLEGE OF ARCHITECTURE

Thomas McPeak (Hd, Dept of History and Visual Studies) has been nominated to serve on the Advisory Board of the Guild of South Carolina Artists.

Representatives of the fourth year architecture studio, of Georgia Institute of Technology attended a seminar provided by the College of Architecture on Health Care Services Delivery and Community Mental Health Facilities, Nov. 7.

Joe Young (Prof) participated in the A.I.A. Committee on the Arts and Recreation Meeting in Washington, D.C., Oct. 30-31.

Jack Clark (Assoc Prof, Dept of Bldg Science) presented a short course on the use of CPM and PERT for the project managers of Phillips Development Corp. of Gaffney. There were more than fifty managers attending the course held at Myrtle Beach.

COLLEGE OF ARCHITECTURE Continued

George C. Means, Jr. (Prof) and Robert Chartier (Instr) gave a lecture to Sigma Theta Tau, National Honorary Sorority for Nursing at the University of South Carolina, College of Nursing, Sept. 5. The subject of the lecture was the Village System.

George C. Means, Jr. and Robert Chartier presented a progress report of the "Village System and Pilot Programs" to the South Carolina Dept. of Mental Health annual meeting, Oct. 18-20 at Myrtle Beach.

UNIVERSITY COUNSELING CENTER

Dr. Fred Steele attended the Southeastern Conference of Counseling Center Personnel held at Vanderbilt University, Nashville, Tenn., November 10 - 12. While there he participated in a three-session training program based on the Carkhuff model as it relates to Counselor education. This training will be utilized in working with small growth groups which will be offered by the Counseling Center during the second semester.

John R. Anderson presented a paper November 11 to the Southeastern Conference of Counseling Center Personnel held at Vanderbilt University. The paper was entitled, "Counseling Center Outreach Programs - Through Consultation with and In-Service Training of Faculty Advisors and other Key Personnel."

ELECTRICAL AND COMPUTER ENGINEERING

J. T. Long (Prof) and J. W. Lathrop (Prof) presented a paper entitled, "A Project Course for Clemson University Electrical Engineers" at the South Carolina IEEE Technical Conference in Aiken, Nov. 10.

ELEMENTARY AND SECONDARY EDUCATION

James E. Matthews (Assoc Prof) delivered a speech entitled, "Legal Responsibilities of the Counselor" on Nov. 11 to the South Carolina Association of Women Deans and Counselors.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Merle Shepard (Asst Prof) and Gerald R. Carner (Asst Prof) attended and participated in the Work Conference on Regulation of Insect Populations with Microorganisms in New York, Oct. 3-6.

Gerald R. Carner, Merle Shepard, and S. G. Turnipseed (Prof) attended and participated in the NSF/IBP Soybean Project meeting in Atlanta, Ga., Oct. 18-20. Clemson has an active NSF/IBP Project and reports were given on the work done thus far on this project and plans were made for future research.

ENTOMOLOGY AND ECONOMIC ZOOLOGY (Continued)

H. Franklin Percival (Asst Prof) presented a paper, "Concentrations of Selected Chlorinated Hydrocarbon Insecticides in Bobwhite Quail in South Carolina," at the annual conference of the Southeastern Association of Game And Fish Commissioners in Knoxville, Tenn., Oct. 23.

ENVIRONMENTAL SYSTEMS ENGINEERING

A. R. Abernathy (Assoc Prof) was elected Director of the Pollution Control Section of the Water and Pollution Control Association of South Carolina at the 23rd annual meeting in Greenville, Nov. 9-10. The director will represent the South Carolina Association for a three year term on the governing body of the Water Pollution Control Federation.

ENGLISH

Malcolm O. Usrey (Assoc Prof) conducted Nov. 11, a symposium on children's literature, attended by some fifty public school teachers. Edward P. Willey (Assoc Prof) presented a paper, "Frank L. Baum: America's First Wizard of Fantasy."

Charles L. Montgomery (Inst, Speech) conducted in Columbia, Nov. 15, the statewide high school speech festival of the South Carolina Speech and Communication Association. Arthur J. Fear, (Assoc Prof) and Janice Sargent (Instr) also participated in the festival, attended by 500 high school students and coaches. Professor Montgomery was elected president of SCSCA.

FORESTRY

D. H. Van Lear (Assoc Prof) presented a paper "Growth and wood properties of loblolly pine on a Piedmont subsoil as influenced by early fertilization" at the annual meeting of the Soil Science Society of America, Oct. 30-Nov. 2 in Miami, Fla.

L. D. Reamer (Asst Prof) was presented a plaque by the Clemson Forestry Alumni Association naming him the outstanding Clemson forestry alumnus of 1972.

C. L. Lane (Assoc Prof) and W. Witcher (Prof, Plant Path and Phys) were awarded a research grant of $11,706 by the Atomic Energy Commission for their study "Fomes annosus infection in slash pine plantations," at the Savannah River Plant. Smaller grants were awarded to W. A. Shain (Assoc Prof) and to N. B. Goebel (Assoc Prof) and D. H. Van Lear (Assoc Prof) for their studies.

FORESTRY (Continued)

B. M. Cool (Prof) attended the Society of American Foresters-National Science Foundation sponsored Workshop on Forestry Curriculum Improvement held at Carrolton, Ky. on Nov. 8-10.

R. M. Allen (Prof and Hd) moderated a panel discussion between members of the press and foresters at the annual meeting of the South Carolina Forestry Association held at Charleston, Nov. 1-2.

LANGUAGES

On Nov. 11, the IOTA PHI chapter of the Spanish Honorary Society SIGMA DELTA PI was installed at Clemson University. The ceremony was sponsored by GAMMA XI, the Wofford College Chapter of SIGMA DELTA PI, and presided over by Dr. Ricardo Remirez of Wofford College. Five Clemson University students were admitted: Jane Coyle, Anne E. Dickson, Sally Henry, Cheryl K. Hudgins, and Ceceila Whitten. Gaston J. Fernandez (Assoc Prof of Spanish) is the advisor of the new chapter.

MECHANICAL ENGINEERING

T. Yang (Prof) presented a paper entitled, "Undertissue Temperature and CO_2 Concentration Measurements During Eschar Debridement Procedure with a Multiphase CO_2 Jet" at the 25th annual conference on Engineering in Medicine and Biology, Miami, Fla., Oct. 1. H. I. Huang (Grad Stu of DIS) is the co-author.

T. Yang presented a paper entitled, "Ejector Performance with a Short Diffuser" at the Jet Pump and Ejector Symposium at Royal Aeronautical Society, London, Nov. 1. A. M. El-Nashar (Ph.D., Univ. London) is the co-author.

POULTRY SCIENCE

D. E. Turk (Assoc Prof) was author of "Protozoan Parasitic Infections of the Chick Intestine and Protein Digestion and Absorption," published in the Journal of Nutrition. 102:1217-1222.

POULTRY SCIENCE (Continued)

Papers in the most recent issue of Poultry Science include:
"The Effect of Leucocytozoon smithi Infection on Production, Fertility and Hatchability of Broad Breasted White Turkey Hens" by J. E. Jones (Assoc Prof), B. D. Barnett (Prof and Hd) and J. Solis (Asst Prof). Poultry Science 51:1543-45.

"Turkey Leucocytozoon Infection. 2. Cryobiologic Preservation of Leucocytozoon smithi Sporozoites"by J. Solis (Asst Prof). Poultry Science 51: 1747-52.

Roxarsone: Efficacy against Eimeria brunetti Infections in Chickens" by L. M. Kowalski (Lect) and W. M. Reid (Prof, Univ of Ga). Poultry Science 51: 1586-1589.

ZOOLOGY

A. S. Tombes (Assoc Prof) published the following two papers in a recent issue of the International Journal of Insect Morphology and Embryology: "Ultrastructure of the Spermatheca of the Granary Weevil, Sitophilus Granarius (L.) (Coleoptera: Curculionidae)". "Scanning Electron Microscopy of Endocrine Tissue of Hypera Punctata (Fabricius) (Coleoptera: Curculionidae)".

CALENDAR OF CAMPUS EVENTS

Dec. 1- Dec. 2		Fri.- Sat.		Foreign Language Workshop.
Dec.	1	Fri.	8:00 p.m.	Chamber Music Series -- Alice Cash, and Lillian Harder, pianists. A recital of music for piano, four hands. Daniel Hall Auditorium.
Dec. 1- Dec. 2		Fri.- Sat.		Clemson Forensic Union -- Junior Debate vs University of Florida -- Gainesville, Fla.
Dec.	2	Sat.		Varsity Basketball -- Davidson at Charlotte.
Dec.	2	Sat.	10:00 a.m.	Clemson Rifle Team at Davidson.
Dec.	4	Mon.		December graduates turn in Alumni Questionnaire and pick up gift.
Dec.	4	Mon.		Intramural football -- Inter-Fraternity.
Dec.	5	Tues.		"Federal Tax Seminar" -- Dr. John Wannamaker, professor of industrial management, chairman -- Clemson House.

CALENDAR OF CAMPUS EVENTS Continued

Dec.	6	Wed.		Dental Aptitude Test.
Dec.	6	Wed.		Varsity Basketball at Furman.
Dec.	6	Wed.	7:00 p.m.	Combined biomaterials seminar and lecture in Polymer Science I - MatE 408/608, "Medical Applications of Silastics - From Basic Chemistry to Commercial Product" by Silas Braley, director, Center for Aid to Medical Research, Dow Corning, Midland, Michigan. 302 Rhodes Engineering Center.
Dec.	7	Thurs.	8:00 p.m.	Graduate wives meeting -- YMCA.
Dec.	7	Thurs.	3:45 p.m.	Musical Christmas -- Clemson House.
Dec.	7-	Thurs.-		Two-day seminar on Air and Water Pollution
Dec.	8	Fri.		Control to be held at the Holiday Inn, 123 By-Pass, Clemson.
Dec.	7	Thurs.	12 noon	Clemson Tip-off Club, Clemson House.
Dec.	9	Sat.		Graduate Record Examination.
Dec.	9	Sat.		Varsity Basketball -- Presbyterian at Clemson.
Dec.	9	Sat.	10:00 a.m.	Clemson Rifle Team vs Mercer -- at Clemson.
Dec.	11	Mon.		Examinations begin.
Dec.	11-	Mon.-		"Special Topics in Color Science" --
Dec.	13	Wed.		Sirrine Hall -- Prof. F.T. Simon, J.E. Sirrine Prof. of Textile Science, Chairman.
Dec.	14	Thurs.	7:30 p.m.	"Exploring Poland" -- P&As Aud.
Dec.	16	Sat.		Varsity Basketball - Villanova at Philadelphia.
Dec.	16	Sat.		Architectural School Aptitude Test.

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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 9 December 15, 1972

CRADDOCK NAMED AGRONOMY AND SOILS HEAD

Dr. Garnet R. Craddock, faculty member of Clemson University's agronomy and soils department for the past 17 years, has been named head of the department.

He succeeds Dr. Luther P. Anderson who was named dean of the College of Agricultural Sciences last June. Craddock has served as acting department head since that time. (Continued on page 2.)

The USDA Citizens Advisory Committee on Civil Rights held their quarterly meeting at Clemson University November 28-29. The group, which normally meets in Washington, was hosted at this "field meeting" by President R.C. Edwards, a member of the 13-member committee. Front row, left to right: Louis Berliner, Columbus, Ohio; Mrs. Mary Sharp, East Lansing, Michigan; and Otis Martin, Fort Worth, Texas. Back row, left to right: President R.C. Edwards; Frank B. Elliott, Assistant Secretary for Administration, USDA, Washington; Mrs. Calista C. Hughes, Lincoln, Nebraska; Linwood B. Sexton, Sedgwick, Kansas; and Jerome Shuman, Director, Office of Equal Opportunity, USDA, Washington.

CRADDOCK NAMED AGRONOMY AND SOILS HEAD Continued

The agronomy and soils department is actively involved in research and promotion of South Carolina's agronomic crops such as soybeans, cotton, tobacco, small grains, corn, and forages.

Craddock joined the Clemson faculty in 1955 after receiving his Ph.D. degree in soils from the University of Wisconsin. The Chatham, Va., native also has the B.S. degree in agronomy from Virginia Polytechnic Institute.

From his initial Clemson appointment as assistant professor of agronomy and assistant soil scientist, Craddock rose through the academic ranks to associate professor (1957), and to a full professorship in agronomy and soils in 1966.

At Clemson, Craddock has taught various soils courses including soil mapping and classification, and soil fertility and management. His research specialty involves work with the U.S. Department of Agriculture Soil Conservation Service on the soil survey program of South Carolina (an inventory of soils in each county) and in the area of land use.

He served as president of the state chapter of the Soil Conservation Society of America in 1971, and president of Gamma Sigma Delta at Clemson in 1971-72.

ALUMNI CENTER - MORE TIME, PLEASE

The Alumni Staff has moved into its new quarters in the new Alumni Center, but they're still working to a great extent out of corrugated packing boxes and the Center is not quite ready for visitors.

"A good bit of the lounge and office furniture has not yet arrived," Director of Alumni Relations Joe Sherman says, "and we sincerely hope folks will give us a little more time before they visit us. We'd like to have all of the beautiful new furniture in place, the drapes and pictures hung and the offices orderly before entertaining visitors. We most sincerely hope this will be right after the first of the year. It would be an injustice to the Alumni Center for people to start visiting it now. It is going to be beautiful and we know the alumni are going to be tremendously proud of it. After January first we want <u>everybody</u> to come to see us."

STUDENT HEALTH SERVICE

Dr. Judson E. Hair (Director) has been advised that his speech, delivered at the Fiftieth Annual Meeting of the American College Health Association, has been selected for publication in the December 1972 issue of the Journal of the American College Health Association. The title of Dr. Hair's presentation was "The Relationship of the HMO to the College and University Health Service in the Rural Setting."

MINUTES OF UNDERGRADUATE COUNCIL, NOVEMBER 3, 1972

The Undergraduate Council met in the conference room, E-103A, Martin Hall. The following were present: Dean Claud B. Green (Chairman), Luther W. Baxter, Carolyn Briscoe, Lamar H. Brown, Robert L. Cross, Arline Duvall, Lawrence W. Gahan, Ralph W. Gilchrist, Jerome V. Reel, Malcolm J. Skove, Chester R. Smith, Rodney Sprott (Student Representative), and Kenneth N. Vickery.

A subcommittee report on Undergraduate Pre-Medical Education was submitted by Dr. Lawrence W. Gahan, Subcommittee Chairman. A copy of the report is attached.

There was a motion and second to accept the subcommittee report; the motion was approved.

The following new undergraduate courses and changes were approved:

COLLEGE OF ARCHITECTURE

Arch	475	Mechanical Plant (Change in credits, from 2 cr to 3 cr)
Arch	476	Mechanical Plant (Change in credits, from 2 cr to 3 cr)
Arch	481	Architectural Office Practice (Change in credits, from 2 cr to 3 cr)
Arch	482	Architectural Office Practice Change in credits, from 2 cr to 3 cr)
CRP	483	Seminar on Planning Communication (Change in credits, from 3 cr to 2 cr)

COLLEGE OF EDUCATION

Ed	301/H301	Principles of American Education (Change in title)
Ed	461	Teaching Reading in the Elementary School (Change in theory and lab hours, from /3 and 0/ to /1 and 4/)
Ed	498	Teaching Secondary School Reading (Change in theory and lab hours, from /3 and 0/ to /1 and 4/).

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

IM	403	Special Problems (change in credits, from 2 cr to 1 - 3 variable credit)
SH	410	Public Safety

COLLEGE OF PHYSICAL, MATHEMATICAL AND BIOLOGICAL SCIENCES

Bot	101	Plant Biology (Replaces Bot 102 and Biol 101)
Bot	103	Laboratory in Plant Biology (Replaces Bot 104)
Zool	101	Animal Biology (Replaces Zool 102 and Biol 101)
Zool	103	Animal Biology Laboratory (Replaces Zool 104)
Zool	220	Human Anatomy and Physiology I
Zool	221	Human Anatomy and Physiology II

The request for approval of BioE 470, Enzyme Engineering, was withdrawn.

The proposed changes in the Medical Technology Curriculum were not approved. Dr. Muriel Bishop will be invited to attend the December meeting of the Council to give additional information related to the proposed changes in this curriculum.

SUB-COMMITTEE REPORT ON UNDERGRADUATE PRE-MEDICAL EDUCATION

The committee composed of R. W. Gilchrist, M. J. Skove and L. W. Gahan held meetings on September 21 and October 19, 1972, to discuss the proposed plan of study for pre-medicine and pre-dentistry approved by the Committee for Preprofessional Health Curricula and submitted to the Undergraduate Council for consideration by Dr. F. A. Burtner.

This report is based on the information and suggestions offered by representatives from the various colleges and this committee attending those meetings. The following are the unanimous recommendations of this committee.

RECOMMENDATIONS:

I. That the present Pre-Medicine and Pre-Dentistry Curriculum listed on pages 223 and 224 of the Clemson University catalog be discontinued and deleted from the catalog.

II. That the following statement be included in the forthcoming general University catalog:

PREPROFESSIONAL HEALTH EDUCATION CURRICULA

(Pre-Medicine and Pre-Dentistry)

The health professions such as medicine and dentistry need individuals with a diversity of educational backgrounds and a wide variety of talents and interests. The philosophies of education, specific preprofessional health course requirements, other qualifications for enrollment, and systems of training vary among the professional health schools, but all recognize the desirability of a broad education -- a good foundation in the natural sciences (biology, chemistry, mathematics, and physics), highly developed communication skills, and a solid background in the humanities and social sciences. The absolute requirements for the admission to professional health schools are purposely limited to allow latitude for developing individualized undergraduate programs of study.

At Clemson, rather than having a separate, organized preprofessional health education program, it is felt that an undergraduate student should be allowed to major in any curriculum, so long as the basic professional health school entrance requirements are fulfilled. These schools are not so much concerned about a student's major as they are concerned that the student does well in whichever curriculum he chooses.

SUB-COMMITTEE REPORT ON UNDERGRADUATE PRE-MEDICAL EDUCATION (Continued)

Professional health schools have neither preferences nor prejudices concerning any curriculum, which is evidenced by the fact that their students represent a broad spectrum of curriculums. The emphasis is placed on the student doing well in the curriculum chosen, and this becomes critical as competition increases for the limited number of places available in professional health schools.

III. That a dual advisory system be developed to assist the student interested in pursuing a career in the health professions; and further that the student be advised early in his academic program of the required courses needed for admission to professional health schools.

MINUTES OF THE UNIVERSITY EXTENSION COUNCIL, NOVEMBER 17, 1972

At two o'clock on Friday, November 17, 1972, the University Extension Council was called to order by Dean Sam M. Willis in the conference room of E103 Martin. C. W. Ackerman, N. R. Bauld, J. H. Evans, H. R. Holman, G. D. Kessler, Stanley Lukawecki, Carolyn Meares, Myrton Packer, F. T. Simon, M. A. Teklits, T. B. Tillman, Jr., George Von Tungeln, and K. E. Carpenter (for J. R. Washburn) were present.

The minutes were approved as circulated. On the motion of Myrton Packer the Council voted to instruct the secretary henceforth to allow five working days after circulation of the minutes for amendations, before deliving the minutes to Dean Willis for publication in The Newsletter.

As chairman of the ad hoc committee on CEUs, George Von Tungeln presented the committee report, which is attached. After some preliminary discussion, Council accepted it as information to be acted upon at the next meeting, Friday, January 19, 1973, at two o'clock.

The meeting was adjourned at 2:37.

ECONOMICS

Robert F. Hebert (Asst Prof) published an article entitled, "A Note on the Historical Development of the Economic Law of Market Areas," in the November issue of the Quarterly Journal of Economics.

Robert F. Hebert presented a paper entitled, "A Neglected Contribution to the Development of the Cobweb Theorem," at the Forty-Second Annual Southern Economic Convention in Washington, D.C.

ENGLISH

Robert W. Hill (Asst Prof) is the author of Sylvia Plath in the Cassette Curriculum Series on Modern American Poetry, published by Everett/Edwards, Inc.

Richard J. Calhoun (Alumni Prof) is the author of Randall Jarrell in the Cassette Curriculum Series on Modern American Poetry, published by Everett/Edwards, Inc. He is the general editor of the series.

ENVIRONMENTAL SYSTEMS ENGINEERING

John H. Austin (Prof), a member of the Council of Public Health Consultants, attended the annual meeting of the Council on Nov. 29-30 in Ann Arbor, Mich.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Ray Noblet (Asst Prof) and Gayle Pittman (Asst Prof) attended the joint national meetings of the American Society of Parasitology and the American Society of Tropical Medicine and Hygiene in Miami, Fla., Nov. 8-10. Dr. Noblet presented two papers, "Development of Plasmodium gallinaceum in Aedes aegypti Maintained on Various Carbohydrate Diets," co-authored with Dr. A. B. Weathersby (Prof from University of Ga) and "Epidemiology and Sporoganous Development of Leucocytozoon smithi in American Turkeys in South Carolina."

T. E. Skelton (Assoc Prof) attended and participated in the annual Cumberland-Shenandoah Fruit Workers Conference in Winchester, Va., Nov. 16-17.

T. R. Adkins (Prof) and Herbert and Louise Henry (Grad Res Assts) attended the joint meeting of the National Entomological Society of America and the Entomological Society of Canada in Montreal, Canada, Nov. 25-30. Herbert Henry and T. R. Adkins presented a paper on "Some Behavorial Aspects of Selected Coastal South Carolina Tabanids." Louise Henry and T. R. Adkins presented a paper on "The Ovarian Cycle in Culicoides hollensis." C. S. Creighton (USDA entomologist, Charleston) presented a paper, "Control of Caterpillars on Cabbage and Collards with Reduced Rates of Bacillus thuringiensis plus Chlorphenomidines." Dr. Adkins served as chairman of the ESA Committee on Professional Training, Standards and Status.

S. B. Hays (Prof and Hd) attended and participated in the dedication ceremonies of the new Entomology Center on the Mississippi State University Campus on Nov. 19-20.

HISTORY

E. M. Lander (Alumni Prof) presided at a session on "William Wragg: Personality and Intellect in Pre-Revolutionary South Carolina" at the Southern Historical Association meeting at Hollywood, Fla., Nov. 18.

J. W. Barnhill (Asst Prof) and Paul Dukes (University of Aberdeen) have published "Scottish Soldiers in Muscovy," Laurentian University Review, June, 1972.

INDUSTRIAL MANAGEMENT

C. H. Whitehurst, Jr. (Prof and Hd), was on a panel participating in the "International and Comparative Management" session at the annual meeting of the Southern Management Association held in Washington, D.C., Nov. 9.

J. M. Wannamaker, CPA (Assoc Prof) has been elected to membership in the American Institute of Certified Public Accountants and the South Carolina Association of Certified Public Accountants.

LANGUAGES

B. G. Durham (Asst Prof) participated in the program of the American Association of Teachers of Spanish at the meeting of the South Atlantic Modern Language Association in Jacksonville, Fla., Nov. 9-11.

Edwin Arnold (Instr) participated in a symposium on "Foreign Language Opportunities for Non-Academic Careers" Nov. 24-25 at a joint meeting of the American Council on the Teaching of Foreign Languages and the Southern Conference on Language Teaching in Atlanta. He also made a presentation on foreign language teaching before the Executive Committee of the South Carolina Association of Secondary School Principals in Columbia on Nov. 28.

MATHEMATICAL SCIENCES

The following papers were presented at the November meeting of the American Mathematical Society at Chapel Hill, N. C., Nov. 24-25:

"A Summability Integral," presented by Randolph Constantine, Jr. (Asst Prof). "On 4-Lattice Graphs," presented by Renu Laskar (Assoc Prof) and Arthur Pellerin.

MECHANICAL ENGINEERING

T. Yang (Prof) presented a paper entitled, "Inverse Problem Approach to the Designs to Short Two-Dimensional Diffusers," at the ASME winter annual meeting held in New York, N.Y., Nov. 22. W. G. Hudson (Assoc Prof) is co-author of this paper.

MUSIC

Edith B. Card (Instr) presented a program of dulcimer and Appalachian folk music on Nov. 16 for the Anderson Mental Health Center.

TEXTILE DEPARTMENT

E. I. Stearns (Prof and Hd) was elected to membership in the National Council for Textile Education on Nov. 10.

R. H. Barker (J. E. Sirrine Assoc Prof) organized and participated in a two day conference for the "Discussion of the Chemistry of Fire Retardant Textile Materials" held Nov. 28-29 at the National Bureau of Standards, Gaithersburg, Md. The conference was sponsored by Clemson University, the National Bureau of Standards and the National Science Foundation.

E. A. Vaughn (Asst Prof) was elected chairman of the Piedmont Chapter of the American Association for Textile Technologists and J. C. Hubbard, Jr. (Prof), was re-elected secretary-treasurer at a local meeting of the chapter in Spartanburg on Nov. 16.

Donald W. Lyons (Assoc Prof), James W. White (Grad Stu), and John D. Hatcher (Asst Prof) published a paper entitled, "Laminar Natural Convection Heat Transfer in Dilute Aqueous Polymer Solutions," in the recent issue of Industrial and Engineering Chemistry Fundamentals.

Donald W. Lyons presented a seminar at Georgia Institute of Technology on the "Impact of OSHA on the Textile Industry."

Donald W. Lyons and John D. Hatcher each served as a session chairman for technical sessions of the South Carolina Occupational Safety and Health Conference. Lowell Nordquist (Instr) presented a paper at the conference. Over 600 industrial and governmental managers and safety specialists attended this conference which is sponsored by the S. C. Dept. of Labor and was held in Columbia.

TEXTILE DEPARTMENT (Continued)

C. W. Roberts (Assoc Prof) presented a paper, "The Technical Education Center - Four Year College and University Interface in the Teaching of Fiber, Polymer and Textile Chemistry," at the Southeastern Regional Meeting, American Chemical Society, Birmingham, Ala., Nov. 4.

ZOOLOGY DEPARTMENT

William E. Bachop (Asst Prof) attended the annual meeting of the American Society for Cell Biology held in St. Louis, Nov. 8-11. An abstract of his paper on Chromosomal polymorphism in embryos appeared in the Proceedings which were published in the November issue of the Journal of Cell Biology.

Edmund D. Brodie, Jr. (Asst Prof) and Ronnie R. Howard (former Grad Stu) have published a paper in the November, 1972 issue of BioScience on "Behavioral Mimicry in the Defensive Displays of the Urodele Amphibians Notophthalmus viridescens and Pseudotriton ruber."

OVER 1,800 HEAR YELLOWSTONE SUPERINTENDENT AT SEMINARS AND PUBLIC MEETINGS

Over 1,800 high school and college students, faculty and members of the general public heard Yellowstone Superintendent Jack K. Anderson lecture and speak during a two-day visit to Clemson Nov. 21-22.

Anderson came to Clemson just after the Centennial Celebration of Yellowstone, the oldest, largest and probably most famous National Park in the world.

Anderson met with six graduate and undergraduate classes in the Recreation and Park Administration Department. His topics included Family Camping in National Parks, Maintenance Problems in Yellowstone, Principles of Planning and Design in Park Systems, Careers in the National Park Service, and Administration, Management by Objectives and Training for Team Management in the Park Service.

In an open meeting Nov. 22, Anderson addressed about 125 persons on the topic "Environmental Problems and Preservation Efforts in Our National Parks." Faculty and graduate students from department throughout the University attended as well as visitors from across the state and officials from the Corps of Engineers, Forest Service and National Parks.

He also addressed a convocation of about 650 students at Daniel High School and was interviewed for three radio and television presentations.

Dr. Jack L. Stevenson hosted Anderson's visit for the Department of Recreation and Park Administration.

CALENDAR OF CAMPUS EVENTS

Dec.	16	Sat.		Varsity Basketball - Villanova at Philadelphia.
Dec.	16	Sat.		Architectural School Aptitude Test.
Dec. Jan.	20- 14	Wed.- Sun.		Architecture exhibit - "Visual Awareness" - Lee Hall Gallery.
Dec.	21	Thurs.	12 noon	Clemson Tip-off Club, Clemson House.
Dec.	21	Thurs.		Mid-year graduation.
Dec.	22	Fri.		Varsity Basketball - Kent State at Clemson.
Dec.	28	Thurs.		Poinsettia Classic (Clemson, Furman, Pepperdine, Texas) - Greenville.
Dec.	29	Fri.		Poinsettia Classic - Greenville.
Jan.	3	Wed.		Varsity Basketball - Niagara at Clemson.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

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Vol. 12 No. 10 January 1, 1972

FIVE NEW PROGRAMS ANNOUNCED BY UNIVERSITY

Clemson University has announced five new academic programs.

A Ph. D. degree program in management science is being jointly offered and administered by the departments of industrial management and mathematical sciences. The structure of the program is a unique blend of courses in statistical theory, operations research, functional areas of management, econometrics and economics. The program will prepare students for the various techniques of the management sciences needed for top-level decision-making by business and industrial firms. The program was inaugurated formally at a symposium at Clemson November 17 and began accepting students in August for the current academic year.

A new bachelor of science degree program in agricultural mechanization and business will be offered beginning next August. This program is designed to prepare students for jobs that require training in both agri-business management concepts and the technical aspects of the total agricultural production and processing industry, but taught from a non-engineering point of view. The program will provide graduates for careers both as farm owners and operators and in supporting service organizations. The Department of Textiles of the College of Industrial Management and Textile Science will offer a Bachelor of Textile Technology degree program effective August 1973. The program offers study in specific areas of applied science with empahsis in such subjects as production, textile preparation, dyeing and finishing. It is designed to prepare students for careers ranging from first-line management to customer service technology in the textile industry.

The College of Agricultural Sciences is offering a minor in environmental science. The new program will be offered to students majoring in other fields, especially those planning careers in public health services and environmental protection. The minor will be of particular interest to students interested in food safety and land and water pollution control.

The Commission on Higher Education has also approved a Ph.D. in Biochemistry which will be effective in January 1973.

VOLUNTEERS NEEDED TO MAKE RECORDINGS FOR BLIND

Beginning second semester the Clemson Student Volunteer Program, a wing of the Clemson University Union, will sponsor a program to benefit the blind. Volunteers are needed among faculty and staff as well as among students to make recordings from newspapers, magazines and books. The tapes will be used on a closed circuit radio station exclusively for the blind and the first such service in South Carolina. The program, called the Radio Talking Service for the Blind, is sponsored by the South Carolina Commission for the Blind. If you are interested in serving, contact Otis Nelson, Director of Volunteer Services, at 656-2460.

MINUTES OF THE MEETING OF THE UNIVERSITY FINE ARTS COMMITTEE--
108 Strode Tower, December 5, 1972

The meeting was called to order at 3:30 p.m. All rotating membership present except J.J. McLaughlin and J. Dalton. All student membership present except Miss Covington.

A resolution was presented by chairman J.H. Butler concerning the endorsement of a high priority for a performing arts building on campus. Said resolution had been suggested by the committee at its previous meeting. After a discussion, the following resolution was adopted unanimously:

"WHEREAS the need for facilities that would enable Clemson University to properly present theatrical and musical events for the student body and the public has become increasingly evident, and WHEREAS adequate facilities do not exist on the campus, a fact that has on several occasions led to embarrassing confrontations with visiting artists and has forced the various presenting agencies (Concert Series, Clemson Players, etc.) to limit the scope of their offerings even to the detriment of meeting public cultural appetites, and WHEREAS increasing restrictions and demands on existing, inadequate facilities further limit the offerings of the University's performing agencies, and WHEREAS Clemson University's emerging role as a cultural as well as educational agency of the State and the area would be greatly enhanced by the construction of a Performing Arts Center that could easily stand as the finest such facility on any state-supported college or university campus in South Carolina, BE IT THEREFORE RESOLVED THAT the Fine Arts Committee of Clemson University go on record as petitioning the central administration of the University, its President and its Board of Trustees, for the assignment of a high priority in development of campus facilities to the construction of a Performing Arts Building."

A further motion to append a cover letter detailing some of the specific problems involved in the use of existing facilities to the above resolution when it is forwarded to proper authority was carried.

A list of possible attractions for the 1973-74 Concert Series was distributed and discussed. After noting several specific preferences for individual attractions, the committee empowered J.H. Butler to negotiate with the various artists' agencies to draw up a slate of presentations based on the specific and general recommendations and preferences voiced by the committee.

The meeting adjourned at 4:30 p.m.

AGRONOMY AND SOILS

W. D. Graham (Assoc Prof) presented a paper, "Comparison of Semi-dwarf and Standard Varieties of Barley Grown at Different Nitrogen Levels," at the annual American Society of Agronomy Meetings in Miami Beach, Fla.

C. C. Vick (Grad Res Asst) presented a paper co-authored by G. R. Craddock (Prof and Hd), "A Rapid Method of Calculating the Specific Surface Area of Undisturbed Soils" to the American Society of Agronomy at Miami Beach, Oct. 29 - Nov. 2.

E. F. McClain (Asst Prof) presented a paper, "Combining Ability in Orchardgrass for Forage Yield Within and Over Years," to the American Society of Agronomy at Miami Beach, Oct. 29-Nov. 2.

AGRICULTURAL EDUCATION

E. T. Carpenter (Prof and Hd) participated in the 66th annual convention of the American Vocational Association at Chicago, Ill., Dec. 1-6. As President of the American Association of Teacher Educators in Agriculture, he presided over the annual sessions of this organization during the convention. Dr. Carpenter also participated in numerous Executive and Policy Committee meetings of the Agricultural Education Division which is composed of the National Vocational Agricultural Teachers' Association, National Association State Supervisors of Agricultural Education, and the American Association of Teacher Educators in Agriculture. The division programs centered around the theme: "Agricultural leadership for career education."

CHEMISTRY

G. L. Powell (Asst Prof) and Oya C. Yazar (Grad Stu) presented a paper entitled "Cyclopropane Fatty Acid Biosynthesis in Relaxed and Stringent Strains of Escherichia coli," at the annual Regional Lipid Conference in Gatlinburg, Tenn., Nov. 2-3.

J. W. Huffman (Prof) presented a seminar at Duke University, Durham, N.C. entitled, "Recent Developments in Terpene Chemistry," Nov. 10.

O. J. Jacobus (Assoc Prof) presented a seminar at the University of South Carolina, entitled "The Southern Conformation of Nicotinamide Adenine Dinucleotide," Nov. 10.

O. J. Jacobus presented seminars at the University of South Alabama and University of Southern Mississippi, entitled "Symmetry in Chemistry and Biochemistry," and "Solution Conformation of Pyridine Nucleotides," Nov. 29-30 and Dec. 1.

CHEMISTRY Continued

Recent publications: G. L. Powell and N. G. Golden (Grad Stu) published "Stringent and Relaxed Control of Phospholipid Metabolism in Escherichia coli," in J. Biol. Chem., 247 (1972).

E. Leete and A. R. Pinder (Prof) published "Biosynthesis of Dioscorine," in Phytochemistry, 11, 3219 (1972).

ELEMENTARY AND SECONDARY EDUCATION

Teryle Carpenter (Instr) read a paper entitled, "Cloze Assessment of Cultural Response Variation" at the annual meeting of the National Reading Conference in New Orleans, La., Dec. 1.

ENGLISH

Richard Calhoun (Alumni Prof) was a panel member in a symposium on the Study of Southern Literature sponsored by the National Endowment for the Humanities and held at Chapel Hill, N. C., Nov. 30 - Dec. 2. The proceedings are to be published by the University of North Carolina Press. While there he participated in the deliberations of the Executive Committee of the Society for the study of Southern Literature.

ENGINEERING RESEARCH

S. F. Hulbert (Assoc Dean), J. J. Klawitter (Asst Prof) and L. S. Bowman (Med Univ of S.C.) had a paper entitled, "History of Ceramic Orthopedic Implants," published in Mat. Res. Bull., Vol. 7, pp. 1239-1246, 1972. Pergamon Press, Inc.

GEOLOGY

D. S. Snipes (Assoc Prof) presented a seminar at Furman University entitled, "Studies of Taleotemperatures of Some Carbonate Rocks," Nov. 15.

HISTORY

J. L. Arbena (Asst Prof) has published "The Climate for Historical Research in Colombia," Latin American Studies Association Newsletter, IIII, Sept. 1972.

LANGUAGES

Ed Arnold (Instr) led an in-service session for foreign language teachers of District 5 in Anderson, Dec. 5. The topic was "Innovative Methods in Foreign Language Teaching."

CALENDAR OF CAMPUS EVENTS

Jan.	3	Wed.		Varsity Basketball - Niagara at Clemson.
Jan.	4	Thurs.	10:00 a.m.	Clemson University Woman's Club -- "New Concepts at Clemson University" - Daniel Auditorium.
Jan.	4	Thurs.	12 noon	Clemson Tip-off Club, Clemson House.
Jan.	6	Sat.		Dental Admissions Test.
Jan.	6	Sat.		Varsity Basketball - Maryland at Clemson.
Jan.	8	Mon.		New student orientation.
Jan. 8- Jan. 30		Mon.- Tues.		Architecture exhibit - regional sculpture exhibition - Lee Hall Gallery.
Jan.	9	Tues.		Registration, all students.
Jan. 9- Jan. 10		Tues.- Wed.		Dairy Science Conference - Clemson House.
Jan.	10	Wed.		Varsity Basketball at North Carolina.
Jan.	11	Thurs.		Classes begin, regular schedule.
Jan.	11	Thurs.	8:00 p.m.	Graduate Wives meeting - YMCA.
Jan.	13	Sat.		Varsity Basketball at Duke.
Jan.	15	Mon.		Basketball - men, women; round robbin; entries - Jan. 8-12.
Jan.	15	Mon.		Handball; round robbin; entries - Jan. 8-12.
Jan.	15	Mon.	8:00 p.m.	Spanish Feature Film (English sub-titles) - Daniel Theatre.
Jan.	17	Wed.		Varsity Basketball - St. John's at Jamaica, N.Y.
Jan.	17	Wed.	2:00 p.m.	CU Speakers Bureau - Brit Hume - Tillman Hall Aud.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 11 January 15, 1973

391 GRADUATE IN DECEMBER CEREMONIES

Clemson University awarded 391 degrees, including 108 advanced degrees, at its mid-year graduation exercises Thursday, Dec. 21.

President Robert C. Edwards conferred 282 bachelor's, one associate in arts, 91 master's and 17 doctoral degrees.

Including ceremonies in May and August, Clemson awarded 1,684 degrees during 1972, largest number ever granted in one year at the University.

Forty-nine students were cited for outstanding scholastic achievement. Michal L. Baird of Darlington and Carolyn H. Constantin of Largo, Fla., were graduated with highest honor.

Twenty-six ROTC cadets were commissioned second lieutenants. At the joint Army and Air Force commissioning ceremony, five cadets received Air Force commissions, and twenty-one were awarded Army commissions.

LEE GALLERY PRESENTS STUDENT EXHIBIT

Clemson University's Lee Gallery is presenting "Visual Awareness," a mid-year student exhibit that features undergraduate work in architectural studies, through Jan. 30.

The exhibit explores concepts related to space and function in structural planning.

The College's department of visual studies is also represented with an exhibition of painting, prints, sculpture and ceramics that give gallery visitors some exposure to the various programs of the College.

The gallery is open 8:30 a.m. - 4:30 p.m. Monday through Friday.

DICKINSON SCHOLAR TO LECTURE HERE

Charles R. Anderson will lecture on the poetry of Emily Dickinson in Daniel Auditorium Wednesday, January 17, at 4:00 p.m. Emeritus Caroline Donavan Professor of English at Johns Hopkins University, Anderson has authored books on Melville, Thoreau, and Emily Dickinson. He has recently retired from Johns Hopkins and is now a resident of Charleston.

The lecture is open to the public.

MINUTES OF THE EDUCATIONAL COUNCIL, DECEMBER 4, 1972

Present: Robert C. Edwards, presiding; Victor Hurst, Walter T. Cox, Stanley G. Nicholas, Melford A. Wilson, H. Morris Cox, J. W. Gordon Gourlay, Claud B. Green, Luther P. Anderson, Geraldine Labecki, Harold F. Landrith, Melvin C. Long, Harlan E. McClure, W. H. Davis McGregor, James L. Edwards, Ernest B. Rogers, A. E. Schwartz, E. N. Tyndall, W. D. Trevillian, K. N. Vickery, Henry E. Vogel, S. M. Willis, and A. W. Rigsby, Secretary.

1. Minutes

The minutes of the meeting of November 7, 1972 were approved as submitted.

2. Curriculum Changes

Statement and Recommendation: The Dean of the University recommends additions, deletions and changes to the curricula, effective when designated on the appropriate Request for Approval forms, unless otherwise indicated, as follows:

I. COLLEGE OF AGRICULTURAL SCIENCES

(A) Change in Course Numbering

EnSc 671	Man and His Environment (Replaces EnH 671)	2 cr. (2 and 0)
EnSc 672	Environmental Control and Planning (Replaces EnH 672)	2 cr. (2 and 0)

II. COLLEGE OF ARCHITECTURE

(A) Change in Credit

Arch 475	Mechanical Plant (Changed from 2 cr. (2 and 0).)	3 cr. (3 and 0)
Arch 476	Mechanical Plant (Changed from 2 cr. (2 and 0).)	3 cr. (3 and 0)
Arch 481	Architectural Office Practice (Change from 2 cr. (2 and 0).)	3 cr. (3 and 0)
Arch 482	Architectural Office Practice (Change from 2 cr. (2 and 0).)	3 cr. (3 and 0)
CRP 483	Seminar on Planning Communication (Change from 3 cr. (3 and 0).)	2 cr. (2 and 0)

(B) New Graduate Course

CRP 890	Directed Studies in City & Regional Planning	1-5 cr.

MINUTES OF THE EDUCATIONAL COUNCIL, DECEMBER 4, 1972 (Continued)

III. COLLEGE OF EDUCATION

(A) Change in Title

Ed 301/H301	Principles of American Education	3 cr. (3 and 0)

(B) Change in Theory Hours

Ed 461	Teaching Reading in the Elementary School (Change from (3 and 0).)	3 cr. (1 and 4)
Ed 498	Teaching Secondary School Reading (Change from (3 and 0).)	3 cr. (1 and 4)

IV. COLLEGE OF ENGINEERING

(A) New Graduate Courses

BioE 602	Medical Applications of Engr. Science	3 cr. (3 and 0)
Bio 650	Special Topics in Biomedical Engineering	1-4 cr. (0-4 & 12-0)
ChE 660	Intro. to Occupational Safety & Health	3 cr. (3 and 0)
ChE 661	Ind. Hygiene Anal. & Instrumentation	3 cr. (2 and 3)
ChE 662	Air Resources Engineering	3 cr. (3 and 0)
CE 621	Advanced Building Materials Selection	3 cr. (3 and 0)
E&CE 620	Power Systems Analysis I	3 cr. (3 and 0)
E&CE 624	Power Systems Analysis II	3 cr. (3 and 0)

(A) New Graduate Courses (continued)

MatE 650	Special Topics in Materials Engr.	1-4 cr. (0-4 & 12-0)
ME 650	Ventilation Design and Operation	3 cr. (2 and 3)
ME 651	Control of Physical Stresses	3 cr. (3 and 0)
ME 652	Safety Engineering	3 cr. (2 and 3)

V. COLLEGE OF INDUSTRIAL MANAGEMENT & TEXTILE SCIENCE

(A) New Undergraduate Courses

IM 403	Special Problems (Change in credits from 2 cr. (2 and 0).)	1-3 cr. (1-3 and 0)
SH 410	Public Safety	3 cr. (3 and 0)

MINUTES OF THE EDUCATIONAL COUNCIL, DECEMBER 4 1972 (Continued)

VI. COLLEGE OF PHYSICAL, MATHEMATICAL & BIOLOGICAL SCIENCES

(A) New Undergraduate Courses

Bot 101	Plant Biology (Replaces Bot 102 and Biol 101.)	3 cr. (3 and 0)
Bot 103	Laboratory in Plant Biology (Replaces Bot 104.)	1 cr. (0 and 2)
Zool 101	Animal Biology (Replaces Zool 102 and Biol 101.)	3 cr. (3 and 0)
Zool 103	Animal Biology Laboratory (Replaces Zool 104.)	1 cr. (0 and 2)
Zool 220	Human Anatomy and Physiology I	4 cr. (3 and 3)
Zool 221	Human Anatomy and Physiology II	4 cr. (3 and 3)

(B) New Graduate Courses

Micro 600	Public Health Microbiology	3 cr. (3 and 0)
Micro 611	Pathogenic Bacteriology	4 cr. (3 and 3)
Zool 621	Advanced Invertebrate Zoology	4 cr. (3 and 3)
Zool 674	Invertebrate Endocrinology	3 cr. (2 and 3)
Zool 840	Comparative Animal Physiology I (Replaces Zool 806.)	4 cr. (3 and 3)
Zool 841	Comparative Animal Physiology II (Replaces Zool 806.)	4 cr. (3 and 3)

VII. THE GRADUATE COUNCIL

(A) Incomplete Graduate Course Work

The grade of "I" may be given for incomplete work for any graduate course in which work remains undone and the student is unable to fulfill all requirements because of circumstances beyond his or her control. This grade is not given in lieu of unsatisfactory or failing grades with an opportunite of improving the grade later and is received and recorded only by the following procedure.

Within ten days after the deadline for submitting final grades, the instructor must present to the student, either personally or by registered mail, written notification stating the specific deficiency which exists and describing the work required for completion of the course. Furthermore this notification must indicate the student's current performance as satisfactory (A or B), unsatisfactory (C), or failing (D or F). Finally, a copy of the notification must be signed by the department head and dean of the college and forwarded to the Graduate Dean within ten days after the deadline for submitting final grades for the semester in which the course was taken.

MINUTES OF THE EDUCATIONAL COUNCIL, DECEMBER 4, 1972 (Continued)

(A) Incomplete Graduate Course Work (Continued)

The grade "I" will be valid for only forty-five days after the deadline for submitting final grades. Within this period, 1)the student must complete his or her work, or 2) the student must request approval from the Graduate Dean for an extension of time by means of a petition which has been endorsed by the instructor, department head, and college dean which states the reason for the request and the length of time needed. Only one request for an extension of time for each grade of "I" will be considered by the Graduate Dean.

A graduate student will not be permitted to repeat any portion or re-register for any course for which the grade of "I" has been given or register in any other course for the purpose of removing the grade of "I." Should any work remain incomplete at the time the deadlines described above expire, a grade of "F" will be recorded on the student's permanent record. Although the Graduate Dean will attempt to bring the above deadlines to the attention of the student and department head, it is the sole responsibility of the graduate student to comply with these regulations.

Students who receive a grade of "Incomplete" while enrolled in the Graduate School at Clemson University remain ineligible for graduation until the incomplete work has been made up and a letter grade submitted to the Office of Admissions and Registration.

NOTE: Change the following on page 28 of the catalog to: "Grades on thesis and dissertation research are on a 'Pass-Fail' basis. Only credit hours for which a grade of 'Pass' is achieved will be recorded on the student's permanent record and count toward degree requirements."

VIII. THE UNDERGRADUATE COUNCIL

(A) Preprofessional Health Education Curricula

1. The present Pre-Medicine and Pre-Dentistry statement and curriculum in the Clemson University catalog are discontinued.

2. Include in the University catalog:

See December 15 issue of Newsletter for statement on Preprofessional Health Education Curricula, as reported in the Minutes of the Undergraduate Council.

MINUTES OF THE MEETING OF THE FACULTY SENATE, NOVEMBER 14, 1972

The meeting was called to order at 4:18 p.m. by President Rogers. The minutes of the October meeting were approved as circulated. President Rogers reported on meetings he had attended since the last Faculty Senate meeting.

President Rogers informed the Senate that he had received a letter from President R. C. Edwards concerning a resolution passed at the October 10 meeting of the Faculty Senate. Dr. Edwards stated that the resolution concerned with the appointments of faculty members to councils and standing committees of the University is most appropriate, and he has requested that the stipulations of the faculty manual be adhered to in making recommendations for such appointments. He has also expressed his appreciation to the Senate for its action in calling the attention of the administration to this matter.

Also, in response to a Senate resolution passed on October 10 and concerned with appointment of a faculty member from the Department of Civil Engineering to the University Traffic and Parking Committee, President Edwards has appointed Dr. J. Edwin Clark, Associate Professor of Civil Engineering to this committee.

Since there have been some misunderstandings on the part of faculty and students regarding class absences while visiting the Student Health Center either as an out-patient or in-patient case, President Rogers presented the following information about class absences:

> In-patient treatment will be certified by proper health service authority with time of admission and time of discharge indicated. Such an absence is considered to be "excused." (See Clemson University Student Handbook 1972-73, page 186.)
>
> Out-patient care, except in case of emergency, will be secured during vacant periods and no written certification issued by the Health Service. Any excuse for class absences due to out-patient medical treatment is discretionary with the instructor concerned.

In reporting for the Policy Committee, Professor Castro stated that the committee had met to discuss the policy regarding restrictions outlined in the Hatch Act concerning political activities of employees.

Professor West reporting for the Welfare Committee, stated that there should have not been a break in health insurance coverage of University employees. Regarding previous reports, the Personnel Office requests names of persons reported to have suffered economic loss due to the changeover in health insurance.

MINUTES OF THE MEETING OF THE FACULTY SENATE, NOVEMBER 14, 1972 (Continued)

Professor Shannon reported on the status of the proposed Faculty Club to be housed in the Clemson House. At present, an official group representing the faculty is needed to make recommendations regarding remodeling the Tiger Tavern for a Faculty Club. There was a general discussion related to selection of such a group, concluding with Professor Shannon's request for ideas for setting up an official committee for the Faculty Club.

Professor Hill presented the following motion:

"Be it resolved, that the Faculty Senate requests the Vice President for Business and Finance to supply the Senate with information as to the number of Motor Pool requests which were not honored during the month of October, 1972, due to the lack of vehicles. Whereas, it is understood that numerous faculty requests for vehicles for laboratory classes and official trips were denied, thereby causing considerable inconvenience for the faculty to function properly. Be it further resolved that proper administrative officials routinely check to see that vehicles are properly authorized and used for the sole purpose requested."

It was pointed out that the resolution was not intended to be critical of Mr. Davis, Motor Pool Supervisor. The Senators were very complimentary of Mr. Davis, indicating that he was very cooperative, but that he did not have the cars necessary to fill requests. It was also pointed out that some faculty members abuse the motor pool by requesting and keeping cars when they weren't needed.

Professor Rimkus moved to table the resolution. The motion was seconded and carried unanimously.

It was then moved by Professor Rimkus that a committee be appointed to study the service of the Motor Pool to University Personnel. The motion, after a second, carried unanimously. President Rogers appointed Professors Hill, Ezell, and Rimkus to the committee.

Professor Camper reported that the use of the grade of I for graduate students was being changed, and that all faculty members would get a copy of the change.

There being no further business, the meeting was adjourned at 6:15 p.m.

Absent from the meeting: K. E. Carpenter and E. A. Vaughn.

MINUTES OF THE AUDIO-VISUAL COMMITTEE MEETING, NOVEMBER 14, 1972

The November meeting of the University Audio-Visual Committee was held in Strode Tower. The following members were present: William F. Beckwith, Thomas E. Douglass, Sam Wang, Opal Hipps, J. F. Allen, Harry Durham, Betty Watkins, James Veitenheimer.

Acting Chairman Harry Durham called the meeting to order. The minutes of the last meeting were read and approved.

The subcommittee charged with developing a form for an Audio-Visual Survey (Hipps, Allen, Durham) reported no suggested changes had been received from reviewers. A discussion followed and two minor alterations were made in the questionnaire.

The subcommittee on Audio-Visual Software (Douglass, Frye and Durham) made a report and distributed a survey form. Dr. Douglass stated that one of the purposes of the survey was to determine what software would be needed by departments if funds could be secured. Mr. Durham asked that the subcommittee on software and the subcommittee developing the AV survey consolidate the two questionnaires. Dr. Douglass was named chairman of this subcommittee; Mr. Durham asked that they be prepared to report at the December meeting.

Dr. Douglass reported that his subcommittee has requested film catalogs for all members.

Mr. Durham called for a feedback regarding the services of the Communications Center. Dr. Allen suggested a correction in the price of audio tapes listed in the services report.

Mr. Durham called on the committee to consider the possibility of the Audio-Visual Committee sponsoring an audio-visual equipment exhibit in conjunction with the meeting of the American Chemical Society on April 20, 1973.

A motion by Mrs. Opal Hipps and seconded by Dr. Allen that the committee contact companies and sponsor an AV Day in conjunction with the American Chemical Society Meeting was carried unanimously.

The meeting was adjourned at 4:10 P.M.

AGRICULTURAL ENGINEERING

C. L. Barth (Assoc Prof), D. T. Hill (Res Asst) and L. B. Polkowski (Prof, Univ of Wisconsin) presented a paper entitled, "Correlating OII and Odorous Components in Stored Dairy Manure" at the winter meeting of the American Society of Agricultural Engineers held in Chicago, Ill., Dec. 11-15. Dr. Barth also presented a paper entitled, "Analytical Methods Related to Animal Waste Research Gases and Aerosols."

C. E. Hood (Assoc Prof), B. K. Webb (Prof), E. T. Sims, Jr. (Prof, Horticulture Dept) and T. R. Garrett (Agri Sci Assoc) presented a paper entitled, "A Portable Dumper-Sorter for Mechanically Harvested Horticultural Crops" at the meeting of the American Society of Agricultural Engineers held in Chicago, Ill., Dec. 11-15.

J. T. Ligon (Prof) and A. W. Snell (Prof and Hd) presented a paper entitled "Derivation and Solution of Partial Differential Equations for Flow of Water in Soils" at the winter meeting of the American Society of Agricultural Engineers held in Chicago, Ill., Dec. 11-15.

J. T. Ligon, R. C. Warner (former Grad Stu) and J. R. Lambert (Prof) presented a paper entitled "Management Model for a Controlled Drainage and Subirrigation System" at the winter meeting of the American Society of Agricultural Engineers held in Chicago, Ill., Dec. 11-15.

T. V. Wilson (Prof) and E. H. Wiser (Assoc Prof of Biol and Agri Engr, N.C. State Univ) presented a paper entitled "Groundwater-Baseflow Relationships and Baseflow Predictions from Groundwater Levels on Piedmont Watersheds" at the meeting of the American Society of Agricultural Engineers held in Chicago, Dec. 11-15.

W. L. Vick (former Grad Stu), M. K. Richardson (Assoc Prof, Eng Mech) and C. E. Hood presented a paper entitled "Digital Simulation of Mechanical Okra Harvesting" at the meeting of the American Society of Agricultural Engineers held in Chicago, Dec. 11-15.

BIOCHEMISTRY

D. M. Henricks (Assoc Prof) presented a seminar to the Biology Dept. at Converse College in Spartanburg on Dec. 6. The title was "Biochemical Regulation of Reproduction."

J. J. Jen (Asst Prof) presented a seminar on "Chlorophyll, photosynthesis and light" to the science students and faculty at Allen University, Columbia, on Oct. 14, 1972 and to the chemistry students and faculty at Livingston College, Salisbury, N. C. on Dec. 7.

BIOCHEMISTRY (Continued)

J. J. Jen (Asst Prof) presented a paper on "The biosynthesis of carotenoids in detached lutescent tomato fruits during ripening" at the Biochemistry section of American Chemical Society, 24th Southeastern Regional meeting held at Birmingham, Ala., Nov. 2-4.

G. L. Powell (Asst Prof) gave a lecture on "Integration of DNA, RNA Protein, and Lipid Biosynthesis in Bacteria" to the Pre-Medical Society at Morris Brown College in Atlanta, Nov. 27. Dr. Powell also gave a lecture on "Prostaglandins" to the Depts. of Biology and Chemistry at Carson-Newman College in Jefferson City, Tenn., Dec. 13.

J. K. Zimmerman (Asst Prof) presented a seminar on "The Molecular Basis of Metabolic Disease" at Gardner Webb College, Boiling Springs, N.C. on Nov. 30 and Limestone College in Gaffney on Dec. 4. Dr. Zimmerman also presented the seminar at Knoxville College, Knoxville, Tenn. on Dec. 6 and at Belmont Abbey College, Belmont, N. C. on Dec. 7.

J. K. Zimmerman was invited to present a seminar on "The Gel Scanning Chromatograph - A New Analytical Technique" to the Baptist College of Charleston, on Nov. 27.

CHEMICAL ENGINEERING

D. F. Bruley (Prof) presented a seminar at North Carolina State University, "Studies in Process Dynamics and Control," Nov. 13.

D. F. Bruley published with Reneau, Bicher, Knisely, "System Analysis of Transport Processes in Human Brain - Part I, Simultaneous Diffusion of Oxygen and Glucose in Brain" Proceedings of 1st Pacific Chemical Engineering Congress, Kyoto, Japan, pp. 132-136, 1972.

D. F. Bruley published with McCracken, Reneau, Bicher, Knisely, "Systems Analysis at Transport Processes in Human Brain - Part II, Studies of the Simultaneous Transport of Oxygen, Glucose and Carbon Dioxide in Human Brain." Proceedings of 1st Pacific Chemical Engineering Congress, Kyoto, Japan, pp. 137-143, 1972.

J. C. Mullins (Assoc Prof) published with R. O. Friederich, "Adsorption Equilibria of Binary Hydrocarbon Mixtures on Homogeneous Carbon Black at 25 degrees C," Industrial and Engr. Chemistry Fundamentals 11, 439 Nov. (1972).

W. F. Beckwith (Assoc Prof) presented a paper at the Undergraduate Free Forum at the 65th annual meeting of AIChE held in New York, Nov. 26-30.

CHEMICAL ENGINEERING (Continued)

J. C. Mullins (Assoc Prof) served as chairman of symposium, "Recent Advances in Experimental and Applied Thermodynamics" and co-chairman of the symposium, "New Developments in the Theory of Solutions and its Applications," at the 65th annual AIChE meeting in N. Y., Nov. 26-30.

W. B. Barlage (Prof), and J. A. Caskey (Technion, Haifa, Israel) published "A Study of the Effects of Soluble Surfactants on Gas Absorption Using Liquid Laminar Jet," Journal of Colloid and Interface Science, Vol. 41, No. 1, Oct. 1972.

W. F. Beckwith (Assoc Prof) studied a digital computer simulation system for use as an aid to chemical engineering education at the AIChE CACHE committee Dynamic Systems and Control Workshop held at Purdue University, Oct. 26-28.

W. F. Beckwith, J. P. Peterson (Grad Stu), W. E. Castro (Assoc Prof) and P. B. Zielinski (Assoc Prof) presented a paper at the 65th annual AIChE meeting held in New York, Nov. 26-30 entitled "Increase Turbulent Dispersion in Dilute High Polymer Drag Reducing Open Channel Flow."

S. S. Melsheimer (Asst Prof) has been awarded an Oak Ridge Associated Universities Participation Agreement to facilitate continued work on mathematical modeling of Donnan dialysis.

CIVIL ENGINEERING

J. Edwin Clark (Assoc Prof) was elected Vice President of the South Carolina Division of the Institute of Traffic Engineers at the Dec. quarterly meeting in Columbia.

ECONOMICS DEPARTMENT

Hugh Macaulay (Alumni Prof) has returned from a semester spent as a Visting Professor of Economics at Texas Tech University.

Frederick H. Rueter (Asst Prof) has had his paper, "Externalities in Urban Property Markets: An Empirical Test of the Zoning Ordinance of Pittsburgh," accepted for publication in The Journal of Law and Economics.

ELEMENTARY AND SECONDARY EDUCATION

Gordon W. Gray (Assoc Prof) and J. Jaap Tuinman (Indiana University) are co-authors of "The Effect of Reducing the Redundancy of Written Messages by Deletion of Function Words" which appears in Journal of Psychology, November, 1972.

INDUSTRIAL EDUCATION

On Nov. 21, the staff of the Graphic Arts Curriculum Development Project presented a Sound Slide program before the supervisors, directors, principals and teachers involved in Graphic Communications in South Carolina. The program covered recent research into the industry and work that has gone into a statewide curriculum in graphic communications. The dinner meeting presentation was hosted by the Printing Industry of the Carolinas as an expression of hearty approval of work that has gone into preparing students for the industry. Presenting the program was Dr. J. Page Crouch (Assoc Prof) and graduate students, David W. Dailey (Project Dir), Allen Main (Script Writer) and Jim Cook (Project Asst).

INDUSTRIAL MANAGEMENT

Hal G. Robbins, Jr. (Asst Prof) participated in the Community Leaders Planning Conference sponsored by the Greater Greenville Chamber of Commerce at Kingswood Country Club, Clayton, Ga., Dec. 8-9. Nearly one hundred persons were involved in the conference which was divided into four discussion groups: Future, Education, Consolidation and Manpower. Prof. Robbins was a member of the Manpower Group.

INTERDISCIPLINARY STUDIES

Ralph B. Leonard (Asst Prof) gave a seminar Dec. 7 at the University of California, Berkeley, entitled "The Use of Ceramics as Surgical Implants."

MATHEMATICAL SCIENCES

John Kenelly (Prof and Hd) spent Dec. 5-6 at North Georgia College, Dahlonega, Ga., as a representative of the Mathematical Association of America Consultant's Bureau. Individuals on the twenty-one member bureau visit colleges and universities in order to review the mathematics curricula, discuss national reports, and assess the local program. During the course of the visit, a lecture entitled "Geometry and Linear Optimization" was presented.

RECREATION AND PARK ADMINISTRATION

Jack L. Stevenson (Assoc Prof) was guest lecturer on Dec. 18 at the monthly "Grand Round" of the staff of the William S. Hall Psychiatric Institute in Columbia. Invited by the Recreation Therapy Staff, his topic was "Recreation and Lesiure: Their Place in the Present and Future Mental Health of our Society."

TEXTILE DEPARTMENT

E. S. Olson (Assoc Prof) has been appointed Academic Guest of the Swiss Federal Institute of Technology during his sabbatical leave, Jan. 1 to June 30, 1973. The appointment bestows rank and privilege of faculty members of the Institute. During his leave, he will be working with Dr. H. Zollinger, Head of the Dept. of Industry and Chemistry at the Institute.

Donald W. Lyons (Assoc Prof) lectured in the short course on Occupational Safety and Health presented by the Greenville Chamber of Commerce. Over seventy-five Greenville area businessmen and industrialists attended the one-day program.

CALENDAR OF CAMPUS EVENTS

Jan.	15	Mon.		Basketball - men, women; round robbin; entries - Jan. 8-12.
Jan.	15	Mon.		Handball; round robbin; entries - Jan. 8-12.
Jan.	15	Mon.	8:00 p.m.	Spanish Feature Film (English sub-titles) - Daniel Theatre.
Jan.	17	Wed.		Varsity Basketball - St. John's at Jamaica, N.Y.
Jan.	17	Wed.	2:00 p.m.	CU Speakers Bureau - Brit Hume - Tillman Auditorium.
Jan.	18	Thurs.	7:30 p.m.	"America of Thee I Sing" - P&AS Auditorium.
Jan.	18	Thurs.	12 noon	Clemson Tip-off Club, Clemson House.
Jan.	20	Sat.		Graduate Record Examination.
Jan.	20	Sat.		Varsity Basketball - N.C. State at Clemson.
Jan.	20	Sat.		Swimming - Auburn.
Jan.	20	Sat.		Philadelphia Track Classic.
Jan.	20	Sat.	10:00 a.m.	Clemson Rifle Team at University of Tennessee.
Jan.	20	Sat.		National Council of the Clemson Alumni Association meets.
Jan.	23-	Tues.-		Pesticide Chemical School - Clemson.
Jan.	24	Wed.		
Jan.	23	Tues.		Swimming at Emory.
Jan.	24	Wed.		Varsity Basketball - Citadel at Clemson.
Jan.	24	Wed.	8:00 p.m.	The Light of Experience - room 200, Hardin Hall.
Jan.	25-	Thurs.-		Pesticide Chemical School - Clemson House.
Jan.	26	Fri.		
Jan.	25	Thurs.	8:00 p.m.	Chamber Music Series, Mary Ann Busching - Daniel Hall Auditorium.
Jan.	26	Fri.	10:00 a.m.	Clemson Rifle Team vs. Davidson at Clemson.
Jan.	27	Sat.		Varsity Basketball - Virginia at Clemson.
Jan.	27	Sat.		Swimming at Georgia Tech.

CALENDAR OF CAMPUS EVENTS Continued

Jan.	29	Mon.	8:00 p.m.	French Feature Film (English sub-titles) - Daniel Theatre.
Jan.	30	Tues.	4:00 and 8:00 p.m.	Cheyenne Autumn - History Film Series - Daniel Aud.
Jan.	30	Tues.		Swimming - Belmont Abbey.
Jan.	31	Wed.	8:00 p.m.	Clemson University Woman's Club - Tillman Aud.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM
FEB 1 1973

Vol. 12 No. 12 February 1, 1973

CLEMSON UNIVERSITY RECEIVES ACCREDITATION

Clemson University has received notification of its accreditation from the Southern Association of Colleges and Schools. Accreditation was reaffirmed at the annual meeting of the group in December 1972.

The action followed an 18-month University Self-Study, required by the association every 10 years, which began at Clemson in December 1969.

The six-volume 1467-page report which resulted contains a complete look at all University activities and provides an evaluation of present programs and projections for the future.

It contains a total of 76 reports -- nine college or schools reports, 54 department or program reports, 12 university-wide reports, plus a report of the steering committee. A total of 382 committee members conducted the self-study and included faculty, staff and student members.

COLLEGE OF NURSING RECEIVES ACCREDITATION

Clemson University's bachelor's and associate degree programs in the College of Nursing have received full accreditation by the National League for Nursing.

The accreditation, which followed an in-depth self-study by the nursing faculty and evaluation by a visiting team of nurse educators, represents a major step in the university's program to help alleviate South Carolina's "critical professional nursing shortage."

"South Carolina now has about 325 registered nurses per 100,000 population, which falls considerably short of the national average and comes nowhere close to the projected U.S. goal of 450 nurses per 100,000," says Dean Geraldine Labecki. Clemson's College of Nursing offers both a four-year bachelor's degree program and a two-year associate degree program in order to provide one source of professional nurses needed by the state's health agencies and hospitals, says Labecki.

An approximately $3-million building is planned for the college to handle its rapidly expanding undergraduate enrollment and proposed graduate program. Clemson's application for funds for the facility has already been approved by the U.S. Department of Health, Education and Welfare, but actual granting of the funds is still pending.

Established in 1968, the college has 25 faculty members and 81 students enrolled in the associate program and 220 in the bachelor's degree program. University planners project an enrollment of 675 students and 52 faculty by 1980.

GODLEY NAMED ASSOCIATE DIRECTOR OF S.C. AGRICULTURAL EXPERIMENT STATION

Dr. W. Cecil Godley assumed new duties in January as associate director of the South Carolina Agricultural Experiment Station.

Godley replaced Dr. J.E. Halpin, recently named director-at-large for the Southern Association of State Experiment Stations.

Godley earned his undergraduate degree at Clemson and his M.S. and Ph.D. degrees from North Carolina State University. He joined the Clemson faculty in 1946 as an instructor in the Department of Animal Science and progressed through the academic ranks to full professor in 1956.

In addition to classroom teaching he has been involved in research in animal breeding and physiology of reproduction. He is a former chairman of the Southern Regional Beef Cattle Breeding Project.

GERMAN FILM SERIES ANNOUNCED

The following films will be presented jointly by the Embassy of the Federal Republic of Germany and the German section of the Department of Languages:

February 14 February 15	4:30 - 5:30 p.m. 7:00 - 8:00 p.m.	"Der Konig von Bayern" (King Ludwig II of Bavaria) The story of the ill-fated king and one-time friend of Richard Wagner. Color-English.
March 7 March 8	4:30 - 6:00 p.m. 7:00 - 8:30 p.m.	"Rasputin" (Historical) Black/White. German, no subtitles.
April 11 April 12	4:30 - 6:15 p.m. 7:00 - 8:45 p.m.	"Der Biberpelz" (Based on the comedy by Gerhart Hauptmann). Black/White. German, no subtitles.

All showing will be in Room 106, Daniel Hall, and are open to all interested person without charge.

SCHOLARSHIPS AND AWARDS COMMITTEE MEETING, NOVEMBER 28, 1972

The Scholarships and Awards Committee met at 3:30 p.m., November 28, 1972, with the chairman, Dr. W. C. Godley presiding. Present were: J. R. Warner, J. T. Lazar, H. E. Morgan, R. H. Hunter, W. C. Whitten, A. L. Recoulley, Claudia Blanford, P. A. Steiner, K. N. Vickery, Susan Delony, N. R. Bauld, F. W. Andrea and Nelwyn L. Stone.

Thirty nominees have been notified of their selection to Who's Who in American Universities and Colleges. The Dean of Student Affairs will recognize and present certificates to those selected at a luncheon on December 6, 1972.

Reference was made to a letter from Director A. M. Bloss to Dean C. B. Green dated November 9, 1972, recommending modifications to the Scholarship Selection Policies and Procedures. The recommendations were reviewed and after considerable discussion Dr. Steiner moved that paragraph C-7, the practice of the Deans sending a consolidated list of students who will receive scholarships for that semester to the Student Financial Aid office two weeks prior to the start of each semester be deleted. The motion was seconded by Dr. Bauld. Motion passed.

Dr. Lazar moved that a subcommittee be appointed to study the procedures for granting of renewable scholarships and to make recommendations to the full committee. Dean Vickery seconded the motion. Motion passed. The subcommittee, to be appointed by the chairman, will include in its study the procedures for receiving and keeping current scholarship applications.

The following statement was approved as a recommendation to the Administration:

"A Poole Scholar enrolled in the Cooperative Education program at Clemson University does not relinquish his scholarship during the time he is enrolled in the program but is employed off the campus. His stipend, however, will be paid only when he is in residence and taking courses at the University.

The stipend will be paid to an entering freshman for eight semesters provided the Poole Scholar remains eligible to hold the Scholarship. These eight semesters may extend over a maximum period of sixty months from the time an entering freshman is first enrolled at Clemson. If a Poole Scholarship is awarded to a non-entering freshman, the time period will be shortened appropriately.

Two six-weeks sessions in the summer will be considered the equivalent of one semester, and one six-weeks session will be considered the equivalent of one-half a semester."

SCHOLARSHIPS AND AWARDS COMMITTEE MEETING, NOV. 28, 1972 (Continued)

It was agreed that the present requirement of at least a 2.0 grade point ratio, actual or predicted, in order for a student to be eligible for a scholarship should be retained.

The chairman announced that Mr. Phillip Rodney Perry has been awarded the Forbes Chocolate Award for 1972-73.

Based on recommendations from the Department of Food Science and the College of Agricultural Sciences Scholarship Committee, Mr. Charles E. Schuster was granted one-half of the C. F. Sauer Scholarship for 1972-73. Mr. Schuster will graduate in December. Miss Susan Knox was recommended for the remainder of the scholarship, this recommendation was approved by the Scholarships and Awards Committee.

Dr. Godley reported that the South Carolina Fresh Fruit and Vegetable Association has terminated the Scholarship Agreement and is supporting students under a grant program.

Mr. Jerry T. Charles has indicated an interest in establishing an R. Brian Ritchie Memorial Scholarship ($10,000) to be awarded to students in the Department of Biological Sciences. Since Clemson University does not have a Department of Biological Sciences, it was agreed to accept the scholarship proposal in principle and to ask for clarification as to the areas included in the Biological Sciences.

The Greenville County Medical Society has asked through Dean Cox that Clemson University, on an annual basis nominate eligible students to receive financial assistance from the Annie A. and Charles H. Fair fund. The fund pays $500.00 to selected individuals while pursuing training at a Medical Institution. Based on the advice of Dr. Frank Burtner, advisor for students in the Pre-Med curriculum, the committee recommends that Mr. Carey Wilson McKain, Taylors, South Carolina, be this year's Clemson nominee to the Greenville Medical Society.

CIVIL ENGINEERING

Subhash C. Anand (Assoc Prof) was the senior author of a paper entitled, "Buckling of Wide Flange Columns About Minor Axis" which was published in the January 1973 issue of the Journal of the Structural Division of the American Society of Civil Engineers.

GRADUATE COUNCIL MINUTES, NOVEMBER 10, 1972

The meeting of the Graduate Council was called to order by Dean Schwartz. Those present were: Dr. Allen, Dr. Bolen, Dr. Camper, Dr. Matthews (for Dr. Freeze), Professor Lee (for Professor Means), Dr. Brawley, Dr. Dysart, Dr. Lyons (for Dr. Macaulay), Mr. Mushinsky, and Mr. Brusse. Attending as visitors were Professor Godbout and Dr. Gauthreaux.

A motion was made to approve the October 13, 1972 Graduate Council minutes with a correction in reference to the paragraph regarding Zoology 840 and Zoology 841. The motion was seconded and approved unanimously. The correction is as follows:

> It was pointed out that the replacement of Zoology 806 by Zoology 840 and 841 may have a direct effect on the interdisciplinary program in Animal Physiology and that prior contact between the Zoology Department and the Coordinator of the Animal Physiology program has not occurred. Therefore, it was suggested that coordination of all efforts (course offerings, etc.) among participants in such interdisciplinary programs be stressed and carried out.

Mr. Mushinsky made a motion that the publishing of the Graduate Council minutes be withheld until such time as they are approved by the Graduate Council. The motion was seconded and approved unanimously.

Discussion followed in reference to the courses Zoology 840 and Zoology 841. Dr. Camper stated there had been no contact by the Animal Physiology Committee. Dr. Gauthreaux responded by reporting the reason for the delay and stated a meeting would be called as quickly as possible.

Dean Schwartz told the Council a letter had been received from the Commission on Higher Education that the PhD program in Biochemistry had been approved for implementation January 1, 1973.

The following graduate courses and changes were approved:

CRP	890	Directed Studies in City and Regional Planning
BioE	602	Medical Applications of Engineering Science
BioE	650	Special Topics in Biomedical Engineering
ChE	660	Introduction to Occupational Safety and Health
ChE	661	Ind. Hygiene Analysis and Instrumentation
ChE	662	Air Resources Engineering
CE	621	Advanced Building Materials Selection
E&CE	620	Power Systems Analysis I
E&CE	624	Power Systems Analysis II
MatE	650	Special Topics in Materials Engineering
ME	650	Ventilation Design and Operation
ME	651	Control of Physical Stresses
ME	652	Safety Engineering
Micro	600	Public Health Microbiology
Micro	611	Pathogenic Bacteriology
Zool	621	Advanced Invertebrate Zoology
Zool	674	Invertebrate Endocrinology

GRADUATE COUNCIL MINUTES, NOVEMBER 10, 1972 (Continued)

A motion was made pertaining to ChE 660 and ChE 661 that the reference to juniors being eligible to take these courses be deleted. The motion was seconded and carried.

Dean Schwartz administratively approved the following changes in course designations:

EnSc	671	Man and His Environment (formerly EnH 671)
EnSc	672	Environmental Control and Planning (formerly EnH 672)

The following courses were tabled:

ESE	610	Radioassay Techniques for Environmental Monitoring
Engl	641	Continental Fiction in Translation

The following courses were disapproved:

ChE	656	Applications of Optimization Theory
CE	660	Civil Engineering Systems Analysis

Dr. Lyons posed the question of what types of changes can be made without Graduate Council approval. Dean Schwartz said that editorial, title, and description changes could be administratively approved, but that changes in syllabus and/or substance would require Council review and approval.

Dean Schwartz requested that the subcommittee reviewing the proposed Master of Science program in the College of Nursing present a preliminary report at the next meeting.

Dr. Kenelly's request regarding broadening areas for PhD students other than those in Mathematical Sciences was referred to the Language subcommittee. A new Language subcommittee was appointed since members originally assigned to the committee are no longer serving on the Council. Dr. Allen was appointed chairman and Dr. Lyons, Dr. Dysart, and Mr. Mushinsky were asked to serve with him.

The policy on incomplete graduate course work was distributed and discussed. Dr. Lyons made a motion that the statement to be added to the graduate catalog regarding "grades on thesis and dissertation research are on a Pass - Fail basis" be approved. The motion was seconded and carried unanimously. Dean Schwartz commented that the policy on "Incomplete" as approved by the Graduate Council would be submitted to the Educational Council. Dr. Brawley made a motion that the new "Incomplete" grading system become effective January 1, 1973. The motion was seconded and approved unanimously.

Dr. Gauthreaux distributed a report of the subcommittee reviewing the program Master of Science in Wildlife Biology, Option in Marine Biology. A motion was made to accept the report, seconded and approved. Dean Schwartz stated that he would submit this report to Dr. S. B. Hays for his information.

GRADUATE COUNCIL MINUTES, NOVEMBER 10, 1972 (Continued)

Dr. Camper suggested that a copy of the GS form 2, Preliminary Plan of Study, be sent to graduate students' major advisors rather than to the college dean. It was further suggested that a memorandum to this effect be sent to all deans.

A motion was made to adjourn, seconded, and passed unanimously.

FACULTY RESEARCH COMMITTEE, PROPOSALS FUNDED DECEMBER 11, 1972

R. F. Walker (Zoology)	"Photic Control of Pineal Function"	$1,000
G. M. Haselton (Geology)	"Surficial Geology of the Moosilauke Quadrangle"	800
J. E. Sargent (History)	"A Roosevelt and Moley Biography"	600
E. D. Brodie (Zoology)	"Defensive Behavior of Tropical Salamanders"	900
H. S. Min (Zoology)	"Characterizations of Dual Mechanisms for Transport of Carbohydrate in Cells of Crithidia."	1,200
T. McInnis (Botany)	"Analysis of Media Inducing Zoosporogenesis in Lagenidium sp."	820
L. Berger (Psychology)	"A Non-Cognitive Predictor of Scholastic Achievement."	220
B. V. Bronk (Physics) L. L. Larcom (Microbiology)	"Thermal Effects on Bacterial Proteins."	1,850
R. W. McLellan (RPA)	"Age Preferences for Companions by Senior Citizens"	200
M. B. Bishop (Chemistry)	"Creatine Phosphokinase Isoenzymes: Levels of Activity in Sera of Diseased Patients"	1,000
J. D. Hatcher (Textiles)	"Frequency of Byssinosis in Cotton Mill Workers"	1,500
D. S. Trask (History)	"Examination of White-Indian Relations in Reservation Bordertowns"	300

FACULTY RESEARCH COMMITTEE PROPOSALS (Continued)

G. J. Fernandez (Languages)	"To Collect Dr. Alfonso Moscoso's Poems as Published Between 1900-1952 in Literary Journals in Ecuador"	$1,060
H. R. Holman (English)	"Continuing Studies in Poe and Page"	50
J. V. Reel (History)	"The English Commission of Sewers and Ditches in the XIVth Century"	950
R. D. England (Architecture)	"Baroque Frescoe Painting in Roman Churches"	730
P. W. Wannamaker (Languages)	"Content Analysis of Materials Used in the Teaching of English in the German Gymnasium: Emergence of an American Image"	1,130
J. J. Jen (Food Science)	"Isolation and Characterization of Proteins and Enzymes in Peaches"	3,320
H. M. Fleishman (Sociology)	"The Effect of Age, S. E. S., Ethnicity, and I. Q. on Moral Judgement."	1,220

COLLEGE OF ARCHITECTURE

Sam Wang (Assoc Prof) participated in a two-man exhibition of photo-serigraphy at the Photographic Gallery at the University of Rhode Island during the month of January.

M. D. Egan (Assoc Prof) attended the Acoustical Society of America meeting at Miami Beach, Fla., Nov. 28-30 and participated in the meetings of the Technical Committee on Architectural Acoustics and the National Council of Acoustical Consultants.

M. D. Egan had a textbook entitled, "Concepts in Architectural Acoustics," published by McGraw-Hill, Inc., New York, N.Y. in December 1972.

Todd Walker, Professor of Photography at the University of Florida, gave a lecture on his Photographic Works on January 15 in the Lee Hall Auditorium.

GRADUATE COUNCIL MINUTES, DECEMBER 18, 1972

The meeting of the Graduate Council was called to order by Dean Schwartz. Those present were: Dr. Lane (for Dr. Allen), Dr. Bolen, Dr. Camper, Dr. Freeze, Professor Means, Dr. Brawley, Dr. Wolla (for Dr. Dysart), Dr. Lyons (for Dr. Macaulay), Mr. Brusse, and Dr. Brown. Attending as visitors were Professor Godbout and Dr. Gauthreaux.

The minutes of the November 10, 1972 meeting were approved with a correction concerning action taken on two courses.

The policy on Incomplete Graduate Course Work was discussed by Dean Schwartz and minor rewording for clarification was suggested and acted on accordingly. The Council agreed that copies of this policy as passed by the Graduate Council and the Educational Council be sent to departments and made available for distribution during the spring 1973 registration.

The following graduate courses and changes were approved:

Ent	840	Insect Ecology
Arch	675	Mechanical Plant
Arch	676	Mechanical Plant
Arch	681	Architectural Office Practice
Arch	682	Architectural Office Practice
Ed	698	Teaching Secondary School Reading
Ed	741	Introduction to Pupil Personnel Services
Ed	742	Psychology of Post Secondary School Youth
Ed	819	Psychoeducational Evaluation Internship
Bioch	991	Doctoral Research

The following course was withdrawn:

Ex St	807	Research Data Processing

Professors Means and Godbout made a progress report on the proposed Master of Science program for the College of Nursing.

The preliminary lists of candidates for December 1972 graduation were distributed and the candidates were approved with the understanding that any other necessary deletions or additions be handled as circumstances arose.

Dean Schwartz related to the Council that he anticipated a request from the Commission on Higher Education to justify continuation of all low enrollment programs. It was suggested that each college begin working on this information in the very near future.

A motion was made, seconded, and unanimously approved to adjourn.

MINUTES OF THE UNIVERSITY LIBRARY COMMITTEE MEETING, NOVEMBER 9, 1972

Present: Ralph E. Knowland (Chairman), R. J. Calhoun, Elizabeth Galloway, G. E. Howard, D . B. Stafford, J. W. Gordon Gourlay (Secretary).

1. Minutes of the meeting of October 5 were approved.

2. Mr. Gourlay distr ibuted for information excerpts from South Carolina Commission on Higher Education, Goals for Higher Education to 1980. Libraries.

The sections discussed were Library Resources in South Carolina and Criteria for Measuring Library Support. The report pointed out that "physical facilities for library service must be rated as outstanding" and that "library resources, with few exceptions, are alarmingly limited in quantity, and massive financial support for library resources will be required if the state is to improve its present low ranking in the state and in the nation."

3. Mr. Gourlay discussed the activity of the Association of Southeastern Research Libraries and its proposal to replicate the Ohio College Library Center. Details of the system had been reported by Mr. Robert Wiggins at the October meeting.

In brief, the plan is to have instant access through CRT terminals in each member library to a regional union catalog in a central data bank. The network makes use of computer technology to enable libraries to cooperate on a regional basis.

Through this cooperation, member libraries can immediately obtain the bibliographic information necessary for ordering books and catalog cards.

The immediate goal is to enable libraries to get books into the hands of users more quickly and economically. Long range plans call for applications to other aspects of library technology. Further study is being made of this system.

4. Mr. Gourlay distributed data indicating the number of persons leaving the library in the twenty minutes prior to closing. These statistics were available from February 1972 to date.

5. Time of next meeting: Unless called for a special purpose, the Committee will not meet during December.

COLLEGE OF NURSING

College of Nursing Programs Accredited by National League for Nursing. The Baccalaureate and Associate Degree Programs in the College of Nursing received notice of accreditation from the National League for Nursing.

This recognition comes as a result of an intensive self-evaluation report submitted to the National League for Nursing, a week's site visit by five nurse educators, and review of these reports by a panel of nurse educators. The designation signifies that the programs have met the criteria designating excellence of program, student achievement, faculty qualifications, and administrative organization and support. The next accreditation self-evaluation report and visit is scheduled for 1980.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Gerald R. Carner (Asst Prof) attended the meeting of the Insect Pathology Committee of the NSF-IBP Soybean Project in Atlanta, Ga., on Dec. 18-19. Plans were formulated for the continuation of this project and progress reports to date were considered.

ENVIRONMENTAL SYSTEMS ENGINEERING

T. M. Keinath (Assoc Prof) and M. P. Wanielista (Assoc Prof, Fla Tech University) were co-chairman of the Eighth Annual Association of Environmental Engineering Professors (AEEP) Workshop entitled "Mathematical Modeling in Environmental Engineering." This workshop was held aboard the M/S Sunward, a Norweigan cruise ship, which traveled from Miami to Freeport and Nassau, Bahamas. A group of approximately 150 participated in various aspects of the workshop which was held during the period Dec. 18-22. J. H. Austin (Prof), President of AEEP, delivered the welcoming address to those aboard. Further, B. C. Dysart III (Assoc Prof), J. F. Andrews (Prof and Hd), and T. M. Keinath (Assoc Prof) presented papers entitled, "Stochastic Modeling of the Interactions Between Treatment Systems and Receiving Waters," "Dynamic Models and Control Strategies for Wastewater Treatment Processes," and "Modeling and Simulation of Adsorption Contactors," respectively. K. D. Tracy and R. A. Poduska (Grad Students) coordinated the daily activities of the workshop/cruise.

L. G. Rich (Prof) served on a team of consultants to the Environmental Protection Agency which visited Howard University, Washington, D.C. on Jan 15.

J. H. Austin (Prof) conducted a five day workshop on training system development for training officers of the Water Supply Industry Training Board of Great Britain, Jan. 15.

ENVIRONMENTAL SYSTEMS ENGINEERING (Continued)

Klaus R. Imhoff, Chief Engineer of the Ruhr Valley Pollution Control Association (West Germany), will present a seminar entitled, "Water Quality Management in the Ruhr Valley" on Monday, Feb. 15 at 3:30 P.M. in the Earle Hall Auditorium. Mr. Imhoff is the AEEP Distinguished Foreign Lecturer for 1973. The seminar is being sponsored by the Association of Environmental Engineering Professors in cooperation with the Dept. of Environmental Systems Engineering and the South Carolina Pollution Control Authority.

Ronald Briggs, Senior Scientific Officer of the National Water Pollution Research Laboratory (Stevenage, England), will present a seminar entitled, "Instrumentation for Automated Monitoring of Water Quality," on Monday, Feb. 12 at 4:00 P.M. in 302 Rhodes Research Center.

MATHEMATICAL SCIENCES

John D. Fulton (Assoc Prof) recently published "Stochastic involutions over a finite field," Duke Mathematical Journal Vol. 39, No. 3 (1972).

W. Robert Boland (Assoc Prof) has had the following articles published recently: "Coefficients for product type quadrature formulas," Math. Comp., Vol. 26 (1972), p. 1015, UMT 42. "Algorithm 436: product type trapezoidal integration," Comm. ACM, Vol. 15 (1972), p. 1070. "Algorithm 437: product type Simpson's integration," Comm. ACM, Vol. 15 (1972), pp. 1070-1071. "Algorithm 438: product type two-point Gauss - Legendre - Simpson's integration," Comm. ACM, Vol. 15 (1972), p. 1071. "Algorithm 439: product type three-point Gauss - Legendre - Simpson's integration," Comm. ACM, Vol. 15 (1972), p. 1072.

Robert E. Haymond (Prof) visited Georgia College, Milledgeville, Ga. on Jan. 15 and gave a lecture entitled "Exhausting Methods in Digital Models."

PHYSICS AND ASTRONOMY

P. B. Burt (Assoc Prof) and J. L. Reid (Grad Stu) had a paper published in Journal of Physics A in September entitled, "Exact Solutions to Quantized Field Theories."

P. B. Burt gave a talk at the American Physical Society meeting in Los Angeles, Calif., Dec. 27-29 entitled "Exact Solutions of Self Interacting Quantum Fields." P. B. Burt and G. H. Foster (Grad Stu) gave a talk at the Los Angeles meeting entitled "Generalized Lagrangians for Massive Arbitrary Spin Fields."

PHYSICS AND ASTRONOMY (Continued)

J. R. Ray (Assoc Prof) and J. C. Foster, Jr. (Grad Stu) gave a talk at that same meeting in Los Angeles entitled, "A Tachyon Dust Metric in General Relativity."

B. B. Bookmyer (Assoc Prof) attended the Sixth Texas Symposium on Relativistic Astrophysics in New York, Dec. 17-23.

ZOOLOGY

L. Stephen Frawley (Grad Stu) and Richard F. Walker (Asst Prof) presented a paper entitled, "Influence of light on thyroid function in the prometamorphic tadpole", at the annual meeting of the American Association for the Advancement of Science in Washington, D.C., Dec. 30. An abstract of the presented information was published in American Zoologist 12 (4) 144.

Paul V. Cupp, Jr. (Grad Stu) and Edmund D. Brodie, Jr. (Asst Prof) presented a paper entitled, "Intraspecific variation in the critical thermal maximum of the plethodontid salamander, Eurycea quadridigitatus" (introduced by Hong S. Min, Prof and Hd) at the annual meeting of the AAAS in Washington, D.C. on Dec. 29. An abstract was published in American Zoologist 12 (4):233. Dr. Brodie and Judith A. Johnson (Grad Stu) also presented a paper entitled, "Aposematic function of the defensive behavior in the salamander, Taricha granulosa." An abstract was published in American Zoologist 12 (4):29.

John L. Hensel (Grad Stu) and E. D. Brodie, Jr. presented a paper entitled "An Experimental Study of aposematic coloration in the salamander Plethodon jordani" at the annual meeting of the Herpetologists' League in Washington, D.C. on Dec. 29. An abstract was published in Herpetological Review 4 (6):200.

Robert B. Peabody (Grad Stu) and E. D. Brodie, Jr. presented a paper entitled, "Effect of temperature, salinity, and photoperiod on the number of trunk vertebrae in Ambystoma maculatum," at the annual meeting of the Herpetologists' League in Washington, D.C. on Dec. 29. An abstract was published in Herpetological Review 4 (6):201.

CALENDAR OF CAMPUS EVENTS

Feb. 1	Thurs.	8:00 p.m.	National Players present Shakespeare's As You Like It - Tillman Hall Auditorium.
Feb. 1	Thurs.	12 noon	Clemson Tip-off Club, Clemson House.
Feb. 1- Feb. 3	Thurs.- Sat.	p.m.	CSU Movie, "The Conformist" shown at YMCA.
Feb. 2- Feb. 3	Fri.- Sat.	9:00 p.m.- 1:00 a.m.	"The Gutter" (CSU Coffeehouse).
Feb. 3	Sat.		Graduate School Foreign Language Test.
Feb. 3	Sat.		Varsity Basketball at Georgia Tech.
Feb. 3	Sat.		Admission Test for Graduate Study in Business.
Feb. 3	Sat.	10:00 a.m.	Clemson Rifle Team at Presbyterian College.
Feb. 4- Feb. 27	Sun.- Tues.		Architecture exhibit - Southeastern Craftsman International - Lee Hall Gallery.
Feb. 5	Mon.	8:00 p.m.	The Pursuit of Happiness - room 200, Hardin Hall.
Feb. 5	Mon.		Swimming - South Carolina.
Feb. 5- Feb. 7	Mon.- Wed.	p.m.	YMCA Movie, "The Blind Man."
Feb. 6	Tues.		Varsity Basketball - Stetson at Clemson.
Feb. 6	Tues.	2:00 p.m.	CU Speakers Bureau - Russ Burgess - Tillman Auditorium.
Feb. 6	Tues.	7:30 p.m.	CSU Ladies' Billiard Lessons at YMCA.
Feb. 6	Tues.		16th Annual Pest Control Operators School - Clemson House.
Feb. 7	Wed.	8:00 p.m.	The Smile of Reason - room 200, Hardin Hall.
Feb. 8	Thurs.	8:00 p.m.	Graduate Wives meeting - YMCA.
Feb. 8- Feb. 10	Thurs.- Sat.		Assoc. of College Unions Region V Games Tournament, University of Tennessee.
Feb. 8- Feb. 10	Thurs.- Sat.	p.m.	CSU Movie at YMCA.
Feb. 8	Thurs.		Program Leaders', District & Associate District Extension Leaders' Conference -F150 P&AS Bldg.
Feb. 9	Fri.	9:00 p.m.	Varsity Basketball at N.C. State.

CALENDAR OF CAMPUS EVENTS Continued

Feb. 9- Feb. 10		Fri.- Sat.	9:00 p.m. 1:00 a.m.	"The Gutter" (CSU Coffeehouse).
Feb.	9	Fri.		S.C. Apple Growers Association Meeting, P&AS Auditorium.
Feb.	10	Sat.	7:00 p.m.	Varsity Basketball - N.C. at Charlotte, N.C.
Feb.	10	Sat.		Architectural School Aptitude Test.
Feb.	10	Sat.	9:00 a.m.	Clemson Rifle Team at Mercer.
Feb.	12	Mon.		Handball - interfraternity; double elimination; entries, Feb. 5-8.
Feb.	12	Mon.	8:00 p.m.	German Feature Film (English sub-titles) - Daniel Theatre.
Feb.	14	Wed.		Varsity Basketball - Wake Forest at Clemson.
Feb.	15	Thurs.	7:30 p.m.	"South Pacific Isles" - P&AS Auditorium.
Feb.	15	Thurs.	12 noon	Clemson Tip-off Club, Clemson House.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

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Vol. 12 No. 13 February 15, 1973

$632,000 BEQUEST WILL BE USED IN CONSTRUCTION OF BIOLOGICAL SCIENCES BUILDING

A restricted bequest of $632,000 to Clemson University by the late F. Marshall Jordan, a 1902 Clemson graduate, will be used in constructing a biological sciences building on the university campus. The building will be named for the donor and his wife.

Jordan, a Seneca native who died in Los Angeles in 1971, began plans for the bequest several years ago and worked closely with Clemson officials to settle details of the gift, the largest bequest in university history.

He entered Clemson five years after the institution was opened and majored in mechanical and electrical engineering.

Jordan began his career as secretary of Seneca Cotton Mill, which was organized and built by his father, Lambert W. Jordan, and is now one of the J.P. Stevens textile installations.

He moved to California in 1911 and in 1921 joined the Lost Angeles Trust and Savings Bank, a predecessor of the present Security Pacific National Bank.

Early in his California career he was appraiser for the Joint Bureau of Appraisal, a body organized to put the assessment of real estate in the City of Los Angeles and the County of Los Angeles on the same basis. He made a complete appraisal of all real estate in Los Angeles county.

He later became appraiser and still later vice president of the Security Pacific National Bank. Upon retirement in 1948, he organized and managed his own mortage loan business until he was 85 years old.

Jordan's widow, Mrs. Evelyn Jordan, resides in Los Angeles. She expressed delight that the bequest will be used for the biological sciences building.

Building plans call for a three-story structure housing about 50 laboratories for teaching and research purposes.

The facility will be used by the departments of botany, biochemistry, microbiology and zoology of the College of Physical, Mathematical and Biological Sciences.

Besides laboratory rooms, there will be ample space for necessary supporting facilities such as instrument rooms, culture rooms, and preparation rooms. Even the roof level will be used for research and teaching. It will contain a greenhouse and an area for small animal research projects.

$632,000 BEQUEST Continued

At its East Campus location, the biological sciences building will sit close to Daniel Hall and Long Hall and will actually adjoin these two buildings at various points. Construction is expected to begin next fall.

DR. SAWYER WILL CHAIR COMMITTEES

Dr. Corinne H. Sawyer, associate professor of English, has been appointed chairman of two standing committees of the University -- the Honors Program Council and Scholarships and Awards.

She succeeds Dr. W. Cecil Godley who was named associate director of the S.C. Agricultural Experiment Station.

"Dr. Sawyer is an excellent choice to serve in this very important area of our undergraduate program," said Dr. Claud B. Green, dean of undergraduate studies. "We are very pleased with her appointment."

Dr. Sawyer recently served as president of the Faculty Senate, and is one of the first women faculty members to serve as chairman of a standing committee of the faculty.

1973 HEART FUND

February is a very important month for the South Carolina Heart Association. It is special because February and American Heart Month have become synonymous as the time each year when an all-out effort is made for funds to continue the fight against heart and blood vessel disease.

It is a fact: the cardiovascular diseases (diseases of the heart and circulation) are the leading cause of death and disability in the nation. Over 27 million have some form of cardiovascular disease, and about 900,000 will die this year from heart attack, stroke and the complications of hypertension.

Things are being done, however, to control and conquer this killer of young and old alike....and the results are encouraging.

The new information about diagnosing, treating and preventing cardiovascular disease discovered through research has been disseminated to physicians, nurses and other health professionals in South Carolina and has updated health care in our state.

The American Heart Association has invested nearly $200 million in research since it was founded in 1949. The South Carolina Heart Association has given nearly a million dollars to research in the same period, with over half of this amount going to projects at the Medical University of South Carolina.

The activities in public education conducted by the State Heart Association and its Clemson Heart Unit have increased awareness of the measures all of us can take to safeguard our health. Of particular importance is knowledge about the warning signs of heart attack and stroke.

1973 HEART FUND Continued

Highlighting the observance of Heart Month will be a number of special campaign activities, including Heart Sunday. On this day, Heart volunteers will canvass neighborhoods door-to-door distributing heart-saving information and receiving contributions.

The State Heart Association's programs are indeed most deserving of our attention and I sincerely hope you will agree that the work deserves our continued support.

Robert C. Edwards
President

"COLLEGE WEEK FOR SENIOR CITIZENS" SET FOR MAY

The third annual "College Week for Senior Citizens" will be offered in two sessions this year, May 21-25 and May 28-June 1, on the Clemson University campus.

The popular annual program brings senior citizens to Clemson to study such problems as nutrition for the elderly, safety in homesand medical quackery. It also features specially designed recreation programs, guided tours and prominent guest speakers.

The senior citizens program is sponsored by the S.C. Commission on Aging, the Clemson University Extension Service and Clemson's department of recreation and park administration (RPA).

BIDS OPENED FOR NEW INSECTARY

Automated Farm Systems of Clemson has submitted the apparent low bid of $56,986 for construction of a new insectary for the department of entomology and economic zoology at Clemson University.

Bids from three firms ranged up to $61,344.

The new structure, which will replace the present wooden frame building, will be located on Cherry Farm at Cherry Crossing. Construction is expected to begin in about two months.

GERMAN ENGINEER CONDUCTS POLLUTION SEMINAR HERE

Klaus R. Imhoff, who has one of the world's biggest pollution control jobs in his role as chief engineer of West Germany's Ruhr Valley Pollution Control Association, spoke at Clemson University Feb. 5.

Imhoff presented a special seminar on "Water Quality Management in the Ruhr Valley." The "system-wide" pollution management seminar is open to engineers, industrial planners and other specialists in the environmental protection field.

GERMAN ENGINEER CONDUCTS POLLUTION SEMINAR HERE Continued

Imhoff's visit to Clemson was the first leg of a two-week tour that will carry him to six select U.S. and Canadian educational institutions as the 1973 Distinguished Foreign Lecturer of the Association of Environmental Engineering Professors (AEEP).

The seminar was sponsored by AEEP in cooperation with Clemson's department of environmental systems engineering and the S.C. Pollution Control Authority.

SEMINARS SCHEDULED BY ENVIRONMENTAL SYSTEMS ENGINEERING

Prominent pollution control and water management experts will be guest lecturers in the 1973 spring seminar series sponsored by Clemson University's department of environmental systems engineering.

Speakers and their topics are:

-- March 8, Gerald L. Shell, director of sanitary engineering research and development, Eimco Division, Envirotech Corporation, "Research and Development Activities on Advanced Wastewater Treatment Processes."

-- March 15, H.D. Gilman, manager of water resources systems engineering of General Electric Co., "Mathematical Modeling for Water Distribution Systems."

-- April 16, Prof. Donald J. O'Connor, Manhattan College, "Modeling and Simulation of Estuaries."

Earlier speakers and their topics included:

-- Feb. 8, Philip A. Lutin of Hensley-Schmidt, Inc., "Industrial Waste Case Histories: The Dairy and Tannery Industries."

-- Feb. 12, Ronald Briggs, senior scientific officer, National Water Pollution Research Laboratory in Stevenage, England, "Instrumentation for Automated Monitoring of Water Quality."

The programs are open, free of charge, to all technical and management personnel involved with pollution control and water systems management.

SOUTHERN CRAFTSMEN EXHIBITING AT LEE GALLERY

"Four Contemporary Craftsmen," the current exhibit at Clemson University's Rudolph Lee Gallery, gives gallery visitors a rare opportunity to examine a collection of works of art by four southern craftsmen whose reputations are soaring, according to Ron Porter, gallery coordinator.

The exhibit includes works in glass, clay, metal and synthetic materials. Most are available for purchase.

The four craftsmen are Prof. Glen Kaufman of the University of Georgia, whose tactilely intriguing weavings, some gigantic, are fashioned from synthetic materials;

SOUTHERN CRAFTSMEN EXHIBITING AT LEE GALLERY Continued

Prof. Richard Mafong of Georgia State University, whose most recent works have been created while he has been head of jewelry design and metalsmithing at the university.

Also, Prof. Jack Mason of Dekalb College, a potter whose total involvement in his work includes preparing his own clay from Georgia soil to explorations in unique pottery design; and John Nygren of Winston-Salem, N.C., whose glass creations are fashioned in his rustic cabin-studio near Walnut Grove, N.C.

The exhibit, which continues through Feb. 26, is sponsored by the Clemson Architectural Foundation. Gallery hours are 8:30 a.m. - 4:30 p.m., Monday through Friday.

MINUTES OF THE GENERAL FACULTY MEETING, DECEMBER 19, 1972

The meeting was called to order by Dean Victor Hurst, Vice President for Academic Affairs and Dean of the University, at 3:00 p.m.

Dean Hurst presented Professor E. B. Rogers, President of the Faculty Senate, who gave a report on the activities of the Senate during the first half of this academic year. A copy of Professor Rogers' presentation is attached to the minutes.

Dean Hurst then presented Dr. R. C. Edwards, President of the University. Dr. Edwards expressed appreciation to the Faculty Senate for its work during the past semester. He also reviewed the financial picture of the State, briefly discussing those events which were influencing Clemson's financial situation. The faculty was informed that the National Association of State and Land Grant Institutions has produced three film commercials which will be seen soon over local television stations. Dr. Edwards also informed the faculty that Coach Ingram had resigned, and Coach Parker employed in this position. The status of the building program was reviewed. In closing Dr. Edwards expressed appreciation for the cooperation of the faculty and students which he had received during recent months.

There being no further business, the meeting was adjourned at 3:25 p.m.

INDUSTRIAL AND MUNICIPAL RELATIONS

The third annual South Carolina State Highway Conference will be presented Feb. 21 - 23. The major portion of the conference will be held at Lowry Hall with a few functions at the Clemson House.

The conference has as its purpose the interchange of ideas and dissemination of information among those concerned with the technical and administrative aspects of the design, construction, and maintenance of public highways.

The conference will be jointly sponsored by the Civil Engineering Dept., College of Engineering and the South Carolina State Highway Dept.

A very talented group of speakers (19) has been acquired for this conference. Clemson University faculty which will be participating in the conference include: J. E. Clark (Assoc Prof, CE), Freddy L. Roberts (Asst Prof, CE), Claire O. Caskey (Assoc Prof, Engl), Donald B. Stafford (Assoc Prof, CE), J. P. Rostron (Prof, CE), and H. W. Busching (Assoc Prof and Hd, CE).

The conference co-chairmen are J. E. Clark and Oren S. Fletcher, Research and Materials Engineer, S. C. State Highway Dept., Columbia. The coordinator is J. K. Johnson, (Dir, Eng Ext).

MINUTES OF UNDERGRADUATE COUNCIL, DECEMBER 1, 1972

The Undergraduate Council met in the conference room, E-103 Martin Hall. The following were present: Dean Claud B. Green (Chairman), Luther W. Baxter, Muriel B. Bishop (Visitor), Carolyn Briscoe, Lamar H. Brown, Robert L. Cross, Arline Duvall, Lawrence W. Gahan, Ralph W. Gilchrist, Jerome V. Reel, Malcolm J. Skove, Rodney Sprott (Student Representative), and Kenneth N. Vickery.

Dr. Muriel Bishop presented to the Council a rationale for proposed changes in the Medical Technology Curriculum. Following discussion of the proposal there was a motion and a second to approve the changes.

The motion was approved. A copy of the revised Medical Technology Curriculum is attached.

A report from the Committee on the Improvement of Undergraduate Teaching was presented by Dr. Malcolm Skove, Committee Chairman. The committee recommended that the present system of student evaluation of faculty members be discontinued and that a new evaluation form be considered.

There was a motion and a second to approve the recommendation of the committee. The motion was defeated.

The Committee on the Improvement of Undergraduate Teaching also recommended that a summary of preliminary grade reports similar to the report now given for final grades be compiled and distributed with the same distribution as that of the final grade reports.

There was a motion and a second to approve the recommendation of the committee. The motion was approved.

Dr. Luther W. Baxter, Chairman of the Ad Hoc Committee to consider Student Credit Loads per Semester presented a report from the Committee. The following recommendations were approved by the Council:

1. That a minimum number of semester hours of credit be set at 130 for graduation in any curriculum.

2. That each curriculum provide a minimum of 10 semester credit hours of free electives so that students who elect to take military science, air science, or any other course for which the Commission on Higher Education does not fund Clemson, can do so without being penalized by being required additional time necessary for graduation.

MINUTES OF UNDERGRADUATE COUNCIL, DECEMBER 1, 1972 (Continued)

3. That each student advisor be notified of the problem and urged to encourage students at all times to carry 15 credit hours exclusive of military and/or air science.

4. That in theory courses, the credit hours and contact hours should be identical.

5. That each college provide additional courses of either 1 or 2 semester credit hours which qualify as general education by the inferred criteria.

Kenneth N. Vickery, Chairman of the Committee on Admissions and Continuing Enrollment presented a recommendation that credit (CR) be awarded for acceptable work in lieu of assigning letter grades in recognition of college-level achievement as determined by institutional special examinations, College Board Advanced Placement Examinations, College Level Examination Program (CLEP), and similar instruments. The recommendation was approved.

The following new courses and curriculum changes were approved:

College of Agricultural Sciences

AgM 405 Advanced Integrated Shop

College of Education

Grade point requirements for entering ROTC programs should be abolished and eligible students should be permitted to enroll in the program of their choice.

College of Forest and Recreation Resources

Change the name of the present Forestry Curriculum to Forest Management Curriculum.

College of Physical, Mathematical, and Biological Sciences

Zool 491 Special Problems in Zoology (1-4 variable credits)
Change in credit hours only.

The policy on incomplete grades for graduate students was passed by the Educational Council December 4, 1972, and appeared in the Newsletter January 15, 1973. The following is in essence the same policy with several editorial changes made for clarification. The policy became effective January 1, 1973.

INCOMPLETE GRADUATE COURSE WORK

The grade of "I" may be given for incomplete work for any graduate course in which work remains undone and the student is unable to fulfill all requirements because of circumstances beyond his or her control. This grade is not given in lieu of unsatisfactory or failing grades (for completed courses) with an opportunity of improving the grade later and is received and recorded only by the following procedure.

Within ten days after the deadline for submitting final grades for the semester in which the course was taken, the instructor must present to the student, either personally or by registered mail, written notification stating the specific deficiency which exists and describing the work required for completion of the course. Furthermore, this notification must indicate the student's current performance as satisfactory (A or B), unsatisfactory (C), or failing (D or F). Finally, a copy of the notification must be signed by the department head and dean of the college and forwarded to the Graduate Dean at the time the student is notified.

The grade "I" will be valid for only forty-five days after the deadline for submitting final grades. Within this period, 1) the student must complete his or her work, or (2) the student must request approval from the Graduate Dean for an extension of time by means of a petition which has been endorsed by the instructor, department head, and college dean which states the reason for the request and the length of time needed. Only one request for an extension of time for each grade of "I" will be considered by the Graduate Dean.

A graduate student will not be permitted to repeat any portion or reregister for any course for which the grade of "I" has been given or register in any other course for the purpose of removing the grade of "I". Should any work remain incomplete at the time the deadlines described above expire, a grade of "F" will be recorded on the student's permanent record. Although the Graduate Dean will attempt to bring the above deadlines to the attention of the student and department head, it is the sole responsibility of the graduate student to comply with these regulations.

Students who receive a grade of "Incomplete" while enrolled in the Graduate School at Clemson University remain ineligible for graduation until the incomplete work has been made up and a letter grade submitted to the Office of Admissions and Registration.

NOTE: The above policy requires a revised procedure for research grades as follows since the grade of "I" will not be used:

Thesis and dissertation research grades are on a "Pass-Fail" basis only and are not included in the academic average; however, they are recorded on the student's permanent record. Only credit hours for which a grade of "Pass" is achieved will apply toward the number of research credit hours required for the degree.

ALGERNON SYDNEY SULLIVAN AWARD

The Scholarships and Awards Committee invites all faculty and staff members to submit nominations for the non-student recipient of this year's Sullivan Award, which will be made on Honors and Awards Day, April 11, 1973. The award is described on page 90 of the 1971-72 University Announcements:

> Algernon Sydney Sullivan Medallion. A valuable and artistic memorial, established by the Southern Society of New York in honor of its first president, is awarded each year by the University to a member of the graduating class and to one other person who has some interest in, association with, or relation to the institution, official or otherwise, of a nature as to make this form of recognition appropriate. The recipients of this award shall be chosen in recognition of their influence for good, their excellence in maintaining high ideals of living, their spiritual qualities, and their generous and disinterested service to others.

Nominations should be sent to Corinne Sawyer, 416 Strode Tower, by March 1, 1973.

Non-student recipients of the Sullivan Award for the past ten years have been:

1963	R. M. Cooper
1964	F. J. Jervey
1965	C. A. Arrington
1966	Virginia Earle Shanklin
1967	John Robert Roy Cooper
1968	James Francis Byrnes
1969	Inez Watson
1970	George Hubert Aull
1971	Gaston Gage
1972	Gertrude Bailey

COLLEGE OF ENGINEERING

James L. Edwards (Acting Dean) spoke to a meeting of the Professional Engineers in Industry and the Professional Engineers in Government Committees of the South Carolina Society of Professional Engineers in Columbia on Thursday, January 18. The topic of his talk was "Current Trends in Engineering Education."

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, NOVEMBER 16, 1972

Acting Chairman David L. Rowe called the regular meeting to order at 1:15 p.m. in the President's Conference Room, Sikes Hall.

Those present were: Ernest Rogers, James Fanning, James McMillan, David Rowe, E. H. McCarter, A. W. Rigsby, and Secretary M. N. Lomax. Absent were: Chairman Thomas Lavender, Jr., John Fulton, and George Moore.

ACTION: Professor Rogers' motion, calling for the approval of the minutes of the meeting on October 23 as distributed, was seconded and passed.

The subject of the status of the Student Bill of Rights was discussed briefly. Mr. Lomax reported that the bill was still under consideration by the Office of Student Affairs.

Professor Rogers reported that after talking with other members of the Faculty Senate, it was determined that student leaders would be permitted to attend regular meetings of the Senate; executive sessions would remain closed.

Other topics briefly discussed were: the Faculty Senate's consideration of Withdrawal Passing and Withdrawal Failing proposals, the scheduling of quizzes the last day prior to holidays and residence hall visitation.

ACTION: A motion that the next meeting be scheduled at 1:30 p.m., January 18, 1973, was seconded and passed.

The Council was adjourned at 2:20 p.m.

ANIMAL SCIENCE

The following Animal Science staff members presented papers at the Southern Section, American Society of Animal Science, Atlanta, Ga., on Feb. 4-7:

R. L. Edwards (Assoc Prof), J. T. Gillingham, and J. C. Ellers - "Effects of Freeze Drying and Urea on Silage."

J. C. McConnell (Asst Prof), C. M. Banks (Grad Asst), D. L. Handlin (Assoc Prof), and G. C. Skelley (Prof), "Protein Level Sequences for Barrows and Gilts."

W. E. Billon (Grad Asst) and R. L. Edwards, "Effects of Dry Roasting Grain for Sheep."

L. W. Hudson (Asst Prof), "Camping Program-Special Interest and Intensified Training Programs."

MINUTES OF THE UNIVERSITY AUDIO-VISUAL COMMITTEE

The December meeting of the University Audio-Visual Committee was held in Strode Tower. The following members were present: M. W. Jutras, Revis M.Frye, Sam Wang, Opal Hipps and Betty Watkins.

The meeting was called to order by Chairman Jutras. The minutes of the November meeting were approved.

Concerning the AV Day in conjunction with the American Chemical Society meeting, Chairman Jutras appointed the following subcommittee: James Veitenheimer (Chairman), Harold Rodgers, and James C. Fanning. This committee will be responsible for (1) contacting firms, (2) locating a place for the display, (3) securing tables for exhibitors and, (4) publicity. The date for the meeting has been changed from April 20 to April 28, 1973.

It was suggested that the AV display be open on Friday, April 27, as well as on Saturday. In addition, the suggestion that a memo be sent to department heads to determine types of AV equipment in which they have special interest was made.

Concerning termination of subcommittees: Subcommittees shall be terminated when responsibilities and reports have been completed. The subcommittee on Centralization of AV facilities was terminated. The subcommittee on Broadcasting and Audio-Visual Academic Courses was also terminated with the understanding that the matter be re-evaluated two years hence.

Chairman Jutras called for a report from the subcommittee charged with the responsibility of consolidating questionnaires on AV Hardware and AV Software. A suggested form was reviewed. A discussion followed at which time suggestions were made. Chairman Jutras charged the subcommittee to continue with the development of the questionnaire with suggested changes and that the committee have the completed form ready for final review at the January meeting.

Using instructional media effectively was discussed briefly. Chairman Jutras suggested the topic be placed on the agenda for the January meeting.

The meeting was adjourned at 4:25 p.m.

INDUSTRIAL MANAGEMENT

R. F. Zant (Asst Prof) presented a paper entitled, "CMS/1 - A Corporate Modeling System" at the 1973 Winter Simulation Conference held in San Francisco, Jan. 17-19. A copy of the paper was published in the proceedings of the conference.

CIVIL ENGINEERING

William Baron (Assoc Prof) was elected President of the Northwest S. C. Branch of the American Society of Civil Engineers.

Freddy L. Roberts (Asst Prof) has been appointed to serve on the Highway Research Board Committee A2B05, "Payment Condition Evaluation," for the next year.

ECONOMICS DEPARTMENT

Robert F. Hebert (Asst Prof) and Robert B. Ekelund, Jr. (Assoc Prof, Texas A&M Univ) have signed an agreement with McGraw-Hill Publishing Company to write a textbook in the history of economic thought, entitled: Economic Analysis, Historically Considered.

Robert F. Hebert and Ralph T. Byrns (Asst Prof) have authored a comment entitled, "On the Cost-Inflationary Impact of High Interest Rates and the Implied Neutrality of Fiscal Policy," which has been accepted for publication by the Journal of Economic Issues.

Robert F. Hebert has had his paper, "The Theory of Input Selection and Supply Areas in 1887: Emile Cheysson," accepted for publication by History of Political Economy.

B. R. Skelton (Assoc Prof) participated in a conference, Dec. 6-10, 1972, at Boca Raton, Fla. The conference was on Collective Bargaining in the Public Service, and was sponsored jointly by the American Assembly and Florida Atlantic University.

ELECTRICAL AND COMPUTER ENGINEERING

J. W. Lathrop (Prof) and J. T. Long (Prof) presented a talk entitled, "Twenty-five years of Solid State Progress," at a meeting in Clemson on Jan. 18 of the Piedmont Section of the Institute of Electrical and Electronic Engineers.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

For the Southeastern Branch of the Entomological Society of America which met in Savannah, Ga., Jan. 30 - Feb. 1, S. G. Turnipseed (Prof, Edisto Station) served as Program Chairman. T. E. Skelton (Assoc Prof) served on the Program Committee.

The following papers were read by Clemson staff/graduate students:

"Biology and Behavior of the Predaceous Earwig, Libidura riparia," Van Waddill (Grad Teach and Res Asst), Merle Shepard (Asst Prof), and W. Kloft (Univ of Bonn, Bonn, West Germany).

"Field and Laboratory Investigations Using Bacillus thuringiensis for Control of Heliothis Species on Cotton" - J. H. Patti (Grad Res Asst) and G. R. Carner (Asst Prof).

"A Study of Oogenesis in Culicoides hollensis and C. melleus (Diptera: Ceratopogonidae) With Notes on Autogeny and Feeding Activity" by Louise G. Henry (Grad Res Asst) and T. R. Adkins, Jr. (Prof).

"Chemical Control Procedures for Chrysops spp. (Diptera: Tabanidae) on Two Golf Courses in Georgetown County, South Carolina" - Herbert M. Henry (Grad Res Asst) and T. R. Adkins, Jr.

"Effect of Insecticide Selection and Application Rate on Predator Survival in Soybeans" - S. G. Turnipseed.

"Photoperiodism and Diapause in the Plum Curculio, Conotrachelus nenuphar (Herbst), in South Carolina" - D. M. Gaydon (Ent Asst, Plant Pest Reg Serv) and G. R. Carner.

"The Biology and Development of the Japanese Wax Scale, Ceroplastes ceriferus (Fabricius)," - Dale K. Pollet (Asst Prof).

"The Seasonal History of Pine Reproduction Weevils on the South Carolina Coast," - Richard C. Fox (Prof) and Heyward B. Douglass (Grad Res Asst).

"Spatial and Temporal Distribution of Arthropods Associated with Soybeans," Merle Shepard (Asst Prof), Gerald Carner, and S. G. Turnipseed.

"Sampling Soybean Insects with Variations of D-vac, Sweep and Ground-cloth Methods," S. G. Turnipseed.

Levels of Chlorinated Hydrocarbon Insecticides in Bobwhite Quail in South Carolina," H. Franklin Percival (Belle Baruch Fellow) and John K. Reed (Biology Dept, Citadel).

ENTOMOLOGY AND ECONOMIC ZOOLOGY (Continued)

"Large Scale Aerial Treatment of an Endemic Area to Control Black Flies and Leucocytozoon Disease of Turkeys with Abate," J. B. Kissam (Assoc Prof) and Raymond Noblet (Asst Prof).

"Flight Range of Simulium slossonae, The Turkey Vector of Leucocytozoon smithi, in Domestic Turkeys in South Carolina," H. S. Moore (Grad Res Asst), and Raymond Noblet.

"Survey and Species Succession of Black Flies in an Area Endemic for Leucocytozoon smithi in South Carolina," Glen I. Garris (Grad Res Asst) and Raymond Noblet.

"Preliminary Observations of Onthophagus gazella F. in the Biodegradation of Cattle Manure" - Edwin W. King (Prof) and Robert P. West (Student).

"Progress in Development of Cowpea Curculio Resistant Southern Peas," F. B. Cuthbert, Jr. and R. L. Fery (Ent, USDA-ARS, Winter Vegetable Insects Research, Truck Sta, Charleston).

Michael J. Sullivan (Asst Prof, Edisto Sta) attended the SE Entomological Society of America in Savannah and presented a paper based on research work done while he was in North Carolina.

The twenty-second annual Pesticide Chemicals School will be held at the Clemson House, Feb. 24-25. The following will serve on the program: T. R. Adkins, Jr. (Prof), J. A. Durant III (Asst Prof, Pee Dee Sta, Florence), A. R. Hopkins (Ent, USDA, Pee Dee Sta), Dale K. Pollet (Asst Prof), T. E. Skelton (Assoc Prof), and L. M. Sparks (Asst Prof).

The 16th annual Pest Control Operators' School, sponsored by the Dept. of Entomology and Economic Zoology and the Cooperative Extension Service, was held at the Clemson House on Feb. 6-7. J. B. Kissam (Assoc Prof) is Program Chairman.

Harold A. Loyacano (Asst Prof) attended and participated in the 4th annual Congress of the World Mariculture Society in Monterrey, Mexico, Jan. 24-26.

FOOD SCIENCE

J. J. Jen (Asst Prof) presented an invited seminar entitled, "Some Biochemical Changes in Ripening Tomatoes and Peaches" to the graduate students and faculty of the Dept. of Nutrition and Food Science at Massachusetts Institute of Technology, Cambridge, Mass. on Jan. 18.

ENGINEERING RESEARCH

S. F. Hulbert (Assoc Dean) has been appointed to serve on the National Institute of Dental Research Materials Advisory Panel. The purpose of the panel is to recommend to the National Institute of Dental Research overall biomaterials needs and objectives including advice as to priorities to be applied for the next several years.

B. W. Sauer (Asst Prof), S. F. Hulbert, J. J. Klawitter (Asst Prof), F. W. Cooke (Assoc Prof), D. D. Moyle (Asst Prof), and A. M. Weinstein (Asst Prof) presented a paper entitled, "Attachment of Prostheses to the Musculo-Skeletal System - The Interface Problem" at the 4th annual meeting of the Biomedical Engineering Society, Los Angeles, Calif., Jan. 30.

S. F. Hulbert, J. J. Klawitter, B. W. Sauer (Asst Prof), and J. R. Matthews (Hewlett Packard, Inc.) presented a paper entitled, "Use of Porous Aluminum Oxide for Direct Skeletal Fixation for Orthopedic Implants," at the San Diego Biomedical Symposium - Innovation in Biomedicine, San Diego, Calif., Feb. 2.

ENVIRONMENTAL SYSTEMS ENGINEERING

B. C. Dysart (Assoc Prof) presented a paper entitled, "Systems Approach in Power Plant Siting: Engineering Economic Aspects," at the American Society of Civil Engineers National Water Resources Engineering meeting held in Washington, Jan. 29-Feb. 2. Dr. Dysart also participated in a meeting of the Society's Technical Council on Water Resources Planning and Management concerned with planning a national symposium sponsored by the Council.

HISTORY

R. W. Olson (Instr) has published "Al-Fatah in Turkey: Its Influence on the 12 March (1971) Coup: A study in International Terrorism," Middle Eastern Studies (January 1973).

J. Y. LeBourgeois (Asst Prof) has published "Swinburne, Lord Lytton and John Forster" in Notes and Queries (November 1972).

MATHEMATICAL SCIENCES

The following persons presented papers at the AMS-MAA winter meeting, Dallas, Tex., Jan 25-29:

Joel V. Brawley (Prof) and Leonard Carlitz (Duke Univ) presented, "A Characterization of the n x n Matrices Over a Finite Field."

John D. Fulton (Assoc Prof) presented "Representations by Quadratic Forms in a Finite Field of Characteristic Two."

Andrew Sobczyk (Martin Prof) presented "Combinatorial Coincidences."

Randolph Constantine, Jr. (Asst Prof) presented "Variation-Norm-Convergence of Function Sequences."

John K. Luedeman (Assoc Prof) presented "A Generalization of the Translational Hull of a Semigroup."

Philip G. Buckhiester (Instr) presented "Rank r Solutions to the Matrix Equation $XAX^T = C$, A Alternate, over GF (2^y)."

Renu Laskar (Assoc Prof) and Bruce Auerbach (Grad Stu) presented "Independence Numbers of Complementary Graphs."

C. V. Aucoin (Prof) has been appointed Visiting Lecturer for the Society for Industrial and Applied Mathematics.

MECHANICAL ENGINEERING

C. A. Brandon (Assoc Prof) and T. A. Grizzle (former Grad Stu) had a paper entitled, "A Test of Similarity Variable for Dilute Fluid-Solid Heat Transfer" published in Progress in Heat and Mass Transfer, 1973, 6, 475-486.

T. Yang (Prof) presented an invited seminar entitled, "Inverse Approach in Designing Contour Wall Diffusers" at the State University of New York at Buffalo on Feb. 1 and on Oct. 30, 1972 at the University of Manchester, Manchester, England.

POLITICAL SCIENCE AND SOCIOLOGY

Charles W. Dunn (Assoc Prof and Hd) was invited to attend the Inauguration of the 37th President of the United States, Richard M. Nixon.

Martin Slann (Asst Prof) participated in the U. S. Department of State "Scholar-Diplomat Seminar" in Washington, D.C. Jan. 8-12.

Jack Tuttle (Assoc Prof) hosted Governor John West for a meeting and reception with political science majors on Jan. 18.

INDUSTRIAL AND MUNICIPAL RELATIONS

A two-day short course in Housing Inspection will be conducted on Feb. 27-28 in the Clemson House.

The program is designed for housing inspectors, municipal and state housing authorities, architects, engineers, contractors, developers and representatives from manufactured housing firms. Every person responsible for the design, construction and inspection of housing will find the sessions educational and beneficial.

The short course is presented by Industrial and Municipal Relations, College of Engineering and Cooperative Extension Service, College of Agricultural Sciences, Clemson University. The short course is sponsored by the Civil Engineering Dept. and Agricultural Engineering Dept., and the Home Builders Association of South Carolina.

There will be 10 excellent speakers participating in the short course.

The short course director is H. W. Busching (Assoc Prof and Hd, CE Dept) and the coordinator is J. K. Johnson (Dir of Eng Ext, College of Engineering).

UNIVERSITY COMMUNICATIONS CENTER

Harry Durham (Director) published "The New Technology," an article on electronic media, in College and University Journal, January, 1973 - Vol. 12, No. 1.

CALENDAR OF CAMPUS EVENTS

Feb.	16	Fri.	2:00 p.m.	CU Speakers Bureau - Ellen Peck - Tillman Aud.
Feb. 16& Feb.	17	Fri.& Sat.	8:00 p.m.	CSU Dance - Concert, "Y" Beach Gym.
Feb.	16	Fri.	9:00 p.m.- 1:00 a.m.	CSU Coffee House, basement of Holtzendorff Hall (YMCA).
Feb.	17	Sat.		Varsity Basketball at Maryland.
Feb.	17	Sat.		Swimming - Augusta College.
Feb.	17	Sat.	9:00 p.m.	CSU Jam Session, Tillman Hall.
Feb.	17	Sat.	9:00 a.m.- 5:00 p.m.	CSU 8-ball tournament, Holtzendorff Hall (YMCA),
Feb.	18	Sun.	8:00 p.m.	CSU Fine Arts Film, "Citizen Kane," Holtzendorff Hall (YMCA).
Feb.	19	Mon.		Varsity Basketball at Virginia.
Feb.	19	Mon.	8:00 p.m.	"Heavy Organ," with Virgil Fox, organist, and Pablo's Lights Show - Littlejohn Coliseum.
Feb.	19	Mon.		Preliminary Trustee Medal competition.
Feb.	19	Mon.		Last day to register for CSU ski trip to Sapphire Valley.
Feb.	19	Mon.	7:00 p.m.	CSU Chess Lessons, Holtzendorff Hall.
Feb. 19- Feb.	21	Mon. - Wed.		CSU Movie: "Fistful of Dollars."
Feb.	20	Tues.	7:30 p.m.	CSU Ladies' Billiard Lessons, Holtzendorff Hall.
Feb.	21	Wed.	8:00 p.m.	The Worship of Nature - room 200, Hardin Hall.
Feb.	21	Wed.		Swimming at Appalachian State.
Feb. 21- Feb.	23	Wed.- Fri.		Third Annual S.C. State Highway Conference - Lowry Hall and Clemson House.
Feb. 22- Feb.	24	Thurs.- Sat.	8:00 p.m.	Clemson Players - "See How They Run" - Daniel Hall Auditorium, admission free, open to the public.
Feb.	22	Thurs.	8:20 p.m.	Bus leaves Holtzendorff Hall (YMCA) for Tri-City Bowling Lanes.
Feb. 22 Feb.	24	Thurs.- Sat.		CSU Movie: "The Watermelon Man," Holtzendorff Hall.

CALENDAR OF CAMPUS EVENTS Continued

Feb.	23	Fri.	4:30 p.m.- 11:30 p.m.	CSU Ski trip to Sapphire Valley.
Feb.	23	Fri.	9:00 p.m.- 1:00 a.m.	CSU Coffee House, the Gutter.
Feb.	23	Fri.		Forensic Union debate at the Citadel.
Feb.	24	Sat.		Varsity Basketball at Wake Forest.
Feb.	24	Sat.		Swimming at North Carolina.
Feb.	24	Sat.	10:00 a.m.	Clemson Rifle Team vs. University of Georgia, at Clemson.
Feb.	24	Sat.	9:00 p.m.- 1:00 a.m.	CSU Coffee House, the Gutter.
Feb.	24	Sat.	9:00 p.m.	CSU Jam Session, place to be announced.
Feb.	25	Sun.	8:00 p.m.	CSU Fine Arts Film, "Through a Glass Darkly."
Feb.	26	Mon.		Finals, Trustee Medal competition - Daniel Hall.
Feb.	26	Mon.	7:00 p.m.	CSU Chess Lessons, Holtzendorff Hall.
Feb.	26- 28	Mon.- Wed.		CSU Movie: "Flim-Flam Man."
Feb.	27	Tues.	7:30 p.m.	CSU Ladies' Billiard Lessons, Holtzendorff Hall.
Feb.	27- 28	Tues.- Wed.		Two-day short course in Housing Inspection - Clemson House.
Feb.	28	Wed.		Varsity Basketball - Duke at Clemson.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 14 March 1, 1973

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM
MAR 1 - 1973

STARKEY ELECTED NATIONAL COUNCIL PRESIDENT

Lawrence V. Starkey Jr. of Atlanta, Ga., has been elected president of the Clemson University Alumni Association's National Council, governing body of the Clemson Alumni Association. He is the youngest person ever to hold the office.

A 1956 graduate of Clemson, Starkey is a U.S. Treasury Department attorney in Atlanta. He has served the past two years as vice president of the Alumni Association.

Named vice president was Virgil F. Linder Jr. (class of 1969), who maintainsbusiness and real estate interests in Columbia and was named to the National Council in January 1972.

Starkey stresses that younger alumni will play an increasingly important role in support of higher education in the future. "Colleges and universities must really begin to tap the reservoir of support of their younger graduates if they are to have the meaningful, broad-based alumni support they will need in years to come," he says.

NATIONAL DIVIDEND FOUNDATION

The National Dividend Foundation will present a seminar in Brackett Hall Auditorium on Wednesday, March 14, at 3 p.m. Invitations are being extended on an individual basis by the National Dividend Foundation, which is sponsoring similar seminars at 25 other colleges and universities throughout the nation.

AEI CENTER FOR PUBLIC POLICY ESTABLISHED AT CLEMSON

In cooperation with the American Enterprise Institute for Public Policy Research, a Center for Public Policy has been established at Clemson University for faculty and students. Through the center, faculty and students will have access to AEI reference materials used by members of Congress and the Executive Branch.

The American Enterprise Institute is a publicly supported, non-partisan research and educational organization located in Washington, D.C. It was established in 1943 to assist the nation's legislators and educational leaders by providing factual analyses of important national policy issues.

For information about use of these materials, contact Russell D. Shannon, Department of Economics.

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, FEBRUARY 5, 1973

Present: Robert C. Edwards, presiding; Victor Hurst, Walter T. Cox, Stanley G. Nicholas, Melford A. Wilson, H. Morris Cox, J. W. Gordon Gourlay, Claud B. Green, O. B. Garrison, Geraldine Labecki, Harold F. Landrith, Melvin C. Long, Harlan E. McClure, W. H. Davis McGregor, James L. Edwards, Ernest B. Rogers, A. E. Schwartz, W. D. Trevillian, K. N. Vickery, Henry E. Vogel, S. M. Willis, E. N. Tyndall, and A. W. Rigsby, Secretary.

1. Minutes

The minutes of the meeting of December 4, 1972 were approved as submitted.

2. Curriculum Changes

Statement and Recommendation: The Dean of the University recommends additions, deletions and changes to the curricula, effective when designated on the appropriate request for approval forms, as follows:

I. COLLEGE OF AGRICULTURAL SCIENCES

(A) New Undergraduate Course

AgM 405	Advanced Integrated Shop	3 cr. (2 and 3)

(B) New Graduate Course

AgM 605	Advanced Integrated Shop	3 cr. (2 and 3)

II. COLLEGE OF ARCHITECTURE

(A) Change in Credit

Arch 675	Mechanical Plant (Changed from 2 cr. (2 and 0)	3 cr. (3 and 0)
Arch 676	Mechanical Plant (Changed from 2 cr. (2 and 0)	3 cr. (3 and 0)
Arch 681	Architectural Office Practice (Changed from 2 cr. (2 and 0)	3 cr. (3 and 0)
Arch 682	Architectural Office Practice (Changed from 2 cr. (2 and 0)	3 cr. (3 and 0)

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, FEBRUARY 5, 1973 (Continued)

III. COLLEGE OF EDUCATION

(A) New Graduate Courses

AgEd 726	Agri. Mechanization for Inservice Teachers	3 cr. (3 and 0)
AgEd 727	Agri. Education Shop Management	3 cr. (1 and 6)
AgEd 737	Internship in Agribusiness Firms	3 cr. (1 and 6)
Ed 741	Introd. to Pupil Personnel Services in Higher Education	3 cr. (3 and 0)
Ed 742	Psychology of Post Secondary School Youth	3 cr. (3 and 0)
Ed 819	Psychoeducational Evaluation Internship	3 cr. (0 and 6)

(B) Change in Theory Hours

Ed 698	Teaching Secondary School Reading (Changed from 3 cr. (3 and 0)	3 cr. (1 and 4)

(C) Change in Title and Description

AgEd 815	Teaching Agricultural & Power Mechanics	3 cr. (2 and 3)

(D) ROTC

The grade-point requirement for entering ROTC programs be abolished and eligible students will be permitted to enroll in the program of their choice.

IV. COLLEGE OF ENGINEERING

(A) Change in Title and Description

ChE 806	Process Systems Analysis and Simulation I	3 cr. (3 and 0)
ChE 807	Process Systems Analysis & Simulation II	3 cr. (3 and 0)
ME 601	Design of Machine Elements	3 cr. (3 and 0)
ME 611	Thermal Power Systems	3 cr. (3 and 0)

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, FEBRUARY 5, 1973 (Continued)

V. COLLEGE OF FOREST AND RECREATION RESOURCES

(A) New Graduate Course

RPA 600 Supervision of Recreation Personnel Patterns and Processes — 3 cr. (3 and 0)

(B) Change in Name of Curriculum

The name of the Forestry Curriculum be changed to Forest Management Curriculum.

VI. COLLEGE OF PHYSICAL, MATHEMATICAL AND BIOLOGICAL SCIENCES

(A) Change in Credit

Zool 491 Special Problems in Zoology — 1-4 cr.

(B) New Graduate Course

Bioch 991 Doctoral Research — Variable credit

(C) Medical Technology Curriculum

Freshman Year

First Semester		Second Semester	
Ch 101 Gen. Chemistry	4 (3, 3)	Zool 102 Prin. of Zool.	2 (2, 0)
Engl 101 Engl. Comp.	3 (3, 0)	Zool 104 Lab. Exer. in Zool.	1 (0, 2)
Biol 101 Prin. of Biology	3 (3, 0)	Ch 112 General Chemistry	4 (3, 3)
Math 101 Math. Analysis I	3 (3, 0)	Engl 102 Engl. Composition	3 (3, 0)
Modern Language	4 (3, 1)	Math 102 Math. Analysis II	3 (3, 0)
AS or MS or Elective	1	Med Tech 101 Intro. to M. Tch	1 (1, 0)
	18	Modern Language	4 (3, 1)
		AS or MS or Elective	1
			19

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, FEBRUARY 5, 1973 (Continued)

Sophomore Year

First Semester		Second Semester	
Ch 223 Organic Chemistry	3 (3, 0)	Ch 224 Organic Chemistry	3 (3, 0)
Ch 227 Organic Chem. Lab.	1 (0, 3)	Ch 228 Organic Chem. Lab.	1 (0, 3)
Econ 201 Prin. of Econ.	3 (3, 0)	Econ 202 Prin. of Econ.	3 (3, 0)
Literature Requirements*	3 (3, 0)	Literature Requirements*	3 (3, 0)
Phys 207 Gen. Physics	4 (3, 2)	Phys 208 Gen. Physics	4 (3, 2)
Electives	2	Electives	3
AS or MS or Elective	1	AS or MS or Elective	1
	17		18

Junior Year

Ch 313 Quan. Analysis	3 (3, 0)	Gen 302 Genetics	4 (3, 3)
Ch 317 Quan. Anal. Lab	1 (0, 3)	Hist 172 or 173 West. Civil.	3 (3, 0)
Hist 171 or 172 West. Civil.	3 (3, 0)	Micro 305 Gen. Microbiol.	4 (3, 3)
Zool 307 Animal Anat. & Phys.	3 (2, 3)	Psych 201 Gen. Psychology	3 (3, 0)
Electives	6**	Electives	3**
	16		17

Senior Year
(52 Weeks)

Med Tech 401	Serology and Immunology	4 (21, 10, 49)
Med Tech 402	Microbiology	7 (56, 6, 470)
Med Tech 403	Hematology	5 (12, 32, 276)
Med Tech 404	Blood Bank	3 (8, 20, 132)
Med Tech 405	Cytology	1 (2, 12, 26)
Med Tech 406	Histology	3 (20, 30, 190)
Med Tech 407	Urinalysis	2 (10, 8, 102)
Med Tech 408	Chemistry	10 (40, 50, 470)
Med Tech 409	Radioisotopes	1 (2, 0, 7)
		36

141 Total Semester Hours

(*) To be selected from the following: Engl 203, 204, 205, 206, 207, 208. First figure represents lecture hours, second figure represents seminar hours, and third figure represents clinical practice hours.

(**) 9 hours of electives shall be taken from the following courses:

Micro 411	Zool 458	Ch 310
Micro 412	I M 307	HAdm 308
Zool 405	Ed 302	BioCh 210

Action: Approved.

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, FEBRUARY 5, 1973 (Continued)

3. National Dividend Foundation Seminar

Statement: The National Dividend Foundation has offered to sponsor a seminar on the campus at no expense to the University. The Foundation is sponsoring similar seminars on the campuses of a number of colleges and universities.

Recommendation: That the National Dividend Foundation sponsored seminar, proposed to be conducted on the University campus, be approved.

Action: Approved.

A. W. Rigsby
Secretary

DAIRY SCIENCE

The following Dairy Science staff members presented papers at the Southern Division of American Dairy Science Association, Atlanta, Ga., Feb. 4-7.

L. E. Lundquist (Grad Res Asst), J. F. Dickey (Assoc Prof), D. M. Henricks (Assoc Prof), and J. R. Hill (Prof) - "A Preliminary Report on Studies of Prostaglanden Treated Bovine Corpora Lutea Cells in Culture."

P. S. Capps (Grad Res Asst), J. F. Dickey, and J. R. Hill - "Histochemistry of the Oviduct in Undernourished Beef Heifers."

P. S. Capps, J. F. Dickey, and J. R. Hill - "Undernutrition and the Bovine Adrenal Cortex."

J. J. Janzen (Prof), A. B. Bodine (Grad Stu), and L. J. Luszcz (Grad Res Asst), "The Role of Dairy Farms in Stream Pollution."

A. B. Bodine and J. J. Janzen - "A Modified Cadmium Reduction Method for Determination of Nitrate."

At the annual meeting of the Southern Division, American Dairy Science Association, Atlanta, Ga., James T. Lazar, Jr. was presented the Honors Award on Feb. 6.

MINUTES OF THE MEETING OF THE FACULTY SENATE, DECEMBER 12, 1972

The meeting was called to order at 4:15 p.m. by Vice President Fulton, presiding in the absence of President Rogers. The minutes of the November meeting were approved as circulated.

Vice President Fulton reported on meetings attended by President Rogers since the November Faculty Senate meeting. The Athletic Council had planned to discuss the requests from the Faculty Senate concerning seating improvements at its last meeting. However, the resignation of Coach Ingram required a change in the agenda, and this topic will be discussed at a future meeting. President Rogers had asked that the Faculty Senate be informed that the book ordering procedure recently adopted was satisfactory, with books arriving on time and in the quantity ordered. Due to a conflicting schedule, Professor Shuler had postponed his meeting with the Senate until the January meeting.

Professor West, reporting for the Welfare Committee, reported that the committee had met with Dean Hurst to explore the need for revision of the current University policy concerning annual leave for faculty members employed for twelve months. The need for this consideration of revising existing policy was created with the 1972 Legislative Act which substantially changes policy for annual leave for State employees, except teaching personnel and officials of academic rank at State-supported institutions of higher learning. Chairman West reported that Dean Hurst was aware of the need for a change in University policy for annual leave for faculty members, but felt that the change should wait for two years.

It was the general feeling of the Senate that if a policy change was desired, it could justifiably be considered immediately.

Professor Beckwith moved that the annual leave policy be referred to the Welfare Committee, and that the committee bring a proposal to the next Faculty Senate meeting. After a second, the motion carried unanimously.

Regarding a study of University Faculty salaries, the Welfare Committee received a very favorable response from Dean Hurst to a request for information relative to 1972-1973 faculty salary data. Dean Hurst is compiling data for a later report. Professor West indicated that identifiable salaries due to rank, sex, etc. would necessarily have to be excluded.

Professor West further reported that the Welfare Committee is attempting to compile a summary of benefits resulting from recent changes in insurance programs. The summary should be available at the February meeting. Presently, the changes in insurance programs as they pertain to salary continuation seem to be of questionable value to faculty members fully covered by Social Security and Workman's Compensation.

MINUTES OF THE MEETING OF THE FACULTY SENATE, DEC. 12, 1972 (Continued)

Professor Fanning, reporting for the Admissions and Scholarship committee, stated that he had met with the Library Committee concerning hours of operation. The general feeling of the Senate was that the present library schedule is satisfactory. The library will be open for sixteen days during the holidays.

Student Senate Bill B-72-36 was presented to the Senate for their consideration. The Bill concerned scholastic regulation as follows:

I. Add new paragraph 4 to "Scholastic Regulations, Minimum Requirements for Continuing Enrollment" (p. 119) to read:

A student re-admitted under the above provision shall have, at the time of his re-admission, the following options concerning credit hours attempted at Clemson. He may choose to keep all credit hours attempted, or he may choose to count for credit only those credit hours he had passed with a "C" or better. (In the former case, the student may keep, without repeating, any "D's" made but, at the same time, keeping his old grade-point ratio. In the latter case, a student will be required to repeat all courses in which he received either a "D" or "F" and his new grade-point ratio will be determined only on the courses taken after his re-admission.

II. All acts and parts of acts inconsistent herewith are hereby declared null and of no effect.

After considerable discussion, Professor Vaughan moved that the Bill be returned to the Student Senate for further study, and that they consider all possible ramifications of the Bill. After a second, the motion carried unanimously.

Professor Fanning presented the following motion for the Admissions and Scholarships Committee:

"Whereas, according to the Constitution and By-Laws of the Faculty and Faculty Senate, (Article I, Section 2. Functions), the functions of the faculty shall be to approve candidates for degrees;"

Whereas, there is no uniform policy currently in effect for faculty approval of graduate degrees,

Be it resolved that candidates for graduate degrees be approved for graduation by the college responsible for their program at the same time as candidates for undergraduate degrees are approved; in case of interdisciplinary graduate degree candidates, they will be approved by each of the Colleges responsible for the program.

MINUTES OF THE MEETING OF THE FACULTY SENATE, DEC. 12, 1972 (Continued)

Be it also resolved that no graduate student who has met the requirements for graduation and who has been approved by the appropriate college faculty or faculties be denied participation in the graduation exercises and be denied having the degree conferred upon him.

Be it also resolved that if a graduate degree is disapproved by the appropriate college faculty, the dean of that College will notify, in writing as soon as possible, both the candidate and the Dean of Graduate Studies of this action and give the reasons for the disapproval."

The motion failed to carry 11 to 10.

Professor Shannon presented the following motion from Ad Hoc Committee A:

"Whereas the survey taken by this committee during the spring of 1972 indicated substantial interest in establishing a faculty club at Clemson (about 250 faculty in favor, 160 suggesting an initiation fee of $20 - $25 and annual dues of $20 - $25); and

Whereas the administration supports the establishment of such a club, will provide some areas in the Clemson House (i.e., the lounge area on the first floor and the former Tiger Tavern area in the basement), and has offered to finance some renovation of these areas; and

Whereas some agency with proper legal authority is needed (1) to negotiate with the administration over the nature of the renovation, (2) to determine more clearly the desires and intended financial support of the faculty and others in such a club, and (3) if it proves feasible, to hire a manager, arrange for food and beverage services, etc., and

Whereas such activities are inherently beyond the scope and powers of the present ad hoc committee;

Therefore be it resolved that during the spring semester a Board of Directors for governing the Faculty Club be established by those people most willing and interested in this project, and that Ad Hoc Committee A be dissolved after helping to see that this Board of Directors is firmly established."

The motion was seconded and carried unanimously.

There being no further business, the meeting was adjourned at 6:00 p.m.

Absent: N. D. Camper, K. E. Carpenter, C. R. Dillon, D. O. Ezell, E. B. Rogers, W. F. Steirer, and K. T. Wallenius.

MINUTES OF UNIVERSITY LIBRARY COMMITTEE MEETING, JANUARY 11, 1973

Present: Ralph E. Knowland (Chairman), William Baron, R. J. Calhoun, Elizabeth Galloway, Ursula A. Holahan, Joseph Hutchinson (Student Representative), John R. Ray, R. E. Schoenike, D. B. Stafford, Mary A. Teklits (for Opal Hipps), J. M. Wannamaker, J. W. G. Gourlay (Secretary).

1. Minutes of the meeting of November 9 were approved.

2. Mr. Gourlay discussed the proposed Southeastern Library Network and read to the Committee the letter that he had sent to Dean Green recommending that Clemson participate in the Network. He read the memorandum from Merrill C. Palmer, Director of the Computer Center, concerning the proposed network. This memorandum had been included with his letter to Dean Green.. The Library Committee unanimously endorsed the recommendation that had been made to Dean Green.

3. Mr. Knowland read a memorandum dated November 13 from Dean Green to Mr. Gourlay concerning branch libraries on the main campus. In response to this memorandum Mr. Knowland had appointed an Ad Hoc Committee composed of Dr. Wannamaker, Chairman and Dr. John R. Ray to tabulate all facts and attitudes which may have a bearing on the University Library Committee's deliberations in regard to a proposed policy on funding and administration of branch libraries on the Clemson campus. Dr. Wannamaker presented copies of the information which he had tabulated. Discussion followed. Mr. Knowland requested each member to visit the departmental collections before the next meeting of the library committee.

4. Mr. Knowland appointed an Ad Hoc committee composed of William Baron, R. J. Calhoun and Joseph Hutchinson to study Student Resolution No. R-73-08, 1972-73, concerning extension of library hours.

5. After discussion it was the consensus that the second Monday of each month would be the most convenient time for the meeting and that the Committee should continue to meet at 3:30 p.m.

6. Time of next meeting: Monday, February 12, 1973, 3:30 p.m.

ENGLISH

Harriet Holman (Prof) has published, "Splitting Poe's 'Epicurean Atoms': Further Speculation on the Literary Satire of Eureka," in the December issue of Poe Studies.

MINUTES OF THE UNIVERSITY EXTENSION COUNCIL, JANUARY 19, 1973

The University Extension Council met at 2:00 in E-103 Martin Hall with the following present; C. W. Ackerman, N. R. Bauld, H. R. Holman, George D. Kessler, Stanley Lukawecki, Carolyn Meares, F. T. Simon, M. A. Teklits, T. B. Tillman, George Von Tungeln, J. R. Washburn, and H. D. Marett (for J. H. Evans). Dean Sam M. Willis presided.

In preliminary comment Dean Willis mentioned with pleasure Governor John West's recommendation for a six million dollar Continuing Education Center already announced and asked Council members' advice and thinking toward initial planning. He reported that the appearance of the minutes for November 17, 1972, in the Clemson Newsletter without the ad hoc committee report on the Continuing Education Unit was at his direction. He suggested holding action on the CEU until full instruction, direction, and guidelines are available from Southern Association. After discussion, Council expressed a concensus for recommending adoption and use of the CEU as a vehicle for record-keeping of Continuing Education courses already in existence, as a means for formula budgeting at some future time, as useful experience in planning for Continuing Education work hereafter, and as a step toward encouraging implementation of Governor West's recommendation for the Continuing Education Center.

After minor admendment the report on the CEU was unanimously accepted. A copy is attached.

Council members were reminded of the obligation to inform their deans and colleges of any recommendation such as this one sent by due process to the Educational Council.

With the announcement that the next meeting will be March 30 at 2:15, the meeting was adjourned at 3:38.

Harriet R. Holman,
Secretary

Sam M. Willis,
Chairman

COMMITTEE REPORT TO CLEMSON UNIVERSITY EXTENSION COUNCIL REGARDING RECOMMENDATIONS WITH RESPECT TO ADOPTION OF CONTINUING EDUCATION UNIT

The committee has sought advice from other individuals involved in continuing education activities at Clemson in arriving at recommended policies and procedures with respect to the continuing education unit (CEU) at Clemson.

We recommend unanimously to the Extension Council that the University adopt the concept of the CEU as a measure of University participation in certain types of continuing education activities as well as a means for providing a permanent record of individual participation in these continuing education activities.

We recommend the following administrative procedures for the approval and execution of continuing education activities that are to be assigned CEU credit:

(1) Each office responsible for continuing education activities should recommend to the Dean of University Extension, for final approval, those continuing education activities in their respective areas that should receive CEU credit. Each specific activity or type of activity should require separate approval each time it is offered. The administrative units initiating continuing education activities are responsible for determining which, if any, of the activities they offer should be recommended for CEUs.

(2) A standard system of recording and reporting CEU's should be established in the Office of Admissions and Registration. The record keeping and reporting processes should include as a minimum the following information:

(a) Student name
(b) Social Security number
(c) Course title
(d) Starting and ending dates for the activity
(e) Number of CEU's awarded for each activity

(3) Each office responsible for continuing education activities should provide the information noted above to the Office of Admissions and Registration.

(4) A transcript service for CEUs should be available to each participant through the Office of Admissions and Registration.

(5) Inasmuch as there are many continuing education programs operating in several colleges in the University at this time, it is further recommended that colleges be authorized by the Dean of University Extension to assign CEUs to individual courses as an interim procedure until such time as the office of the Dean of University Extension has implemented the formal record-keeping and approval process. In this interim period, the office responsible for such continuing education programs will be required to keep the necessary records.

The committee has discussed some possible implications associated with the implementation of a program wherein CEUs are awarded as recognition of participation.

Careful attention should be given to the procedures for establishing those special activities for which CEUs are to be awarded if the CEU is going to measure anything more than signifying attendance. That is, the CEU should be awarded only for those activities for which a reasonable procedure can be established for assessing the positive effect that the special activity has had on the participant. This implies that the course instructor or director is responsible for determining that the degree of participation on the part of the student justifies awarding the CEUs for the particular course.

No matter what strictures are placed against translating CEUs into academic credit now, there is likely to be strong pressures to do so in the future. Therefore, careful consideration should be given now in establishing the criteria that are to be used to assign CEU credit to continuing education activities.

N. R. Bauld

F. T. Simon

George von Tungeln
Chairman

MATHEMATICAL SCIENCES

C. Bradley Russell (Assoc Prof) has had the following article published recently: "An Optimal Policy for Operating a Multipurpose Reservoir," Operations Research, Vol. 20, No. 6, (1972) pp. 1181-1189.

GRADUATE COUNCIL MINUTES, JANUARY 12, 1973

The meeting of the Graduate Council was called to order by Dean Schwartz. Those present were: Dr. Allen, Dr. Bolen, Dr. Camper, Professor Means, Dr. Brawley, Mr. Mushinsky, Mr. Brusse, and Dr. Brown. Attending as a visitor was Professor Godbout.

The minutes of the December 18, 1972 meeting were approved as distributed.

Dean Schwartz distributed and discussed the policy on incomplete. He noted several editorial changes made for clarification.

The following graduate courses and changes were approved:

Ag Ed	726	Agricultural Mechanization for Inservice Teachers
Ag Ed	727	Agricultural Education Shop Management
Ag Ed	737	Internship in Agribusiness Firms
Ag Ed	815	Teaching Agricultural and Power Mechanics
Ag M	605	Advanced Integrated Shop
RPA	600	Supervision of Recreation Personnel Patterns and Processes

A brief progress report was made concerning the Master of Science program for the College of Nursing.

The appointment of a Thesis Manual subcommittee was discussed and Dr. Camper was appointed chairman. Dr. Camper was asked to report the names of committee members at the next meeting.

Dean Schwartz distributed copies of the revision of Standard X, Graduate Program, as proposed by Southern Association of Colleges and Schools.

A motion was made to adjourn and passed.

MINUTES OF AUDIO-VISUAL COMMITTEE MEETING, JANUARY 16, 1973

The January meeting of the University Audio-Visual Committee was held in Strode Tower. The following members were present: M. W. Jutras, Revis Frye, Mary Joyce Kelley, William F. Beckwith, Thomas E. Douglass, J. F. Allen, Sam Wang, James Veitenheimer, and Betty Watkins.

The meeting was called to order by Chairman Jutras. Dr. Jutras introduced a slide/cassette tape presentation on the use of the library. The program was produced by the University Communications Center.

Following the presentation, the minutes of the December meeting were approved.

Chairman Jutras called for reports. The Communications Center Services report was delayed until the February meeting. Revis Frye reported the subcommittee on AV Software is in the process of gathering material. Thomas Douglass, chairman of the subcommittee charged with the responsibility of consolidating questionnaires on AV Hardware and Software, circulated the final draft for committee approval. The form was approved by the committee following minor changes. The questionnaire will be sent to each Dean and each Department Head. The questionnaire is to be returned to Dr. Douglass.

Chairman Jutras called on Mr. Veitenheimer for a report of the AV Display Committee. Mr. Veitenheimer reported the display will be held in Brackett Hall. The committee is in the process of contacting firms who may wish to participate.

Chairman Jutras called on Sam Wang to report informally on the use of Instructional Media. The report led to much discussion, however no action was taken.

The meeting was adjourned at 4:30 p.m.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

J. M. Stepp (Alumni Prof) presented discussion paper, "Alternatives to the Local Property Tax for Educational Finance," at the annual meeting of Southern Agricultural Economics Association, Atlanta, Ga., Feb. 6.

E. L. McLean (Assoc Prof) participated in the annual meeting of Southern Region Technical Committee to study Rural Development and Quality of Life in the Rural South, Feb. 3-4 in Atlanta, was appointed chairman of a subcommittee to conduct regional analyses of secondary and survey data.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY (Continued)

E. L. McLean (Assoc Prof) at the annual meeting of Rural Sociology Section of Association of Southern Agricultural Workers, Feb. 5-7, in Atlanta was re-appointed chairman of a subcommittee concerned with cooperative structures among rural sociologists in the South.

BIOCHEMISTRY

D. M. Henricks (Assoc Prof) presented a seminar on "Biochemical Regulation of Reproduction," at Johnson C. Smith University, Charlotte, N.C., Feb. 13. Dr. Henricks also presented the seminar at Barber Scotia College, Concord, N.C. on Feb. 14.

G.L. Powell (Asst Prof) gave a seminar on "Prostaglandins" at Carson-Newman College, Jefferson City, Tenn., Dec. 13, 1972 to the students and faculty of the Departments of Chemistry and Biology.

G. L. Powell gave a seminar on "Coordination of RNA, DNA, and Protein Biosynthesis in Bacteria" to the Chemistry and Biology faculty of Morris Brown College, Atlanta, Ga., Nov. 27, 1972.

J. M. Shively (Prof and Hd) gave lectures at Central Wesleyan College, College of Charleston, Maryville College, Maryville, Tenn., East Tennessee State University, Johnson City, Tenn., Atlanta University, Atlanta, Ga., North Georgia College, Dahlonega, Ga., and Agnes Scott College, Decatur, Ga. on "Molecular Architecture of Cellular Membranes."

J. M. Shively gave research seminars at the Medical College of Georgia, Augusta, Ga. and Johns Hopkins University Medical School, Baltimore, Md. on "Functional Organelles in Procaryotic Cells."

J. K. Zimmerman (Asst Prof) gave an invited lecture on "The Molecular Basis of Metabolic Disease," at Georgia College, Milledgeville, Ga. on Jan. 4.

J. K. Zimmerman presented a seminar on "The Molecular Basis for Metabolic Disease," to the Biology Dept. and a seminar on "The Scanning Gel Chromatograph: A New Analytical Method" to the Chemistry Dept. of Davidson College, Davidson, N. C. on Feb. 9.

COLLEGE OF ARCHITECTURE

Jack L. Clark (Assoc Prof, Dept of Bldg Sci) attended a three-day seminar entitled, "Computer Applications for the Architect." The seminar was sponsored by Harvard University, Cambridge, Mass. Dr. Clark was also invited to present a paper at the University of Oklahoma entitled, "A Balance of Art and Technology in the Teaching of Architecture." He also presented a paper to the College of Architecdure, University of Florida entitled, "The Computer and Architectural Design."

Jack L. Clark was invited to assist the College of Architecture and Design, Kansas State University, in the evaluation of the Building Science program and to suggest a possible direction for the program.

Peter Hoppner, New York architect of note, has been a visiting critic in the College of Architecture, working predominately with the graduate architectural students studying a performing arts complex for Clemson University.

William M. C. Lam, architectural lighting consultant, lectured to graduate architectural students on Feb. 15.

Glen Varenhorst presented a paper entitled, "A Patch Work of Things," on the subject of urban planning implementation on Feb. 12. The CAF sponsored lecture was followed by a reception in the Lee Gallery.

Tom Turner, (Instr) has been awarded an individual grant from the South Carolina Arts Commission to further explore and develop vapor glazing processes new to the Contemporary Designer Craftsmen. Mr. Turner's research began in 1967 and a survey of its development will be shown in the Lee Hall Gallery this coming July.

Mr. Turner is also representing Clemson University at the Mint Museum of Art, Charlotte, N. C. in the 10th Annual Piedmont Crafts Exhibition, the largest juried show of the Southeast, Feb. 18 through April 15.

The College of Architecture has been informed that the American Institute of Planners National Membership Standards Committee has approved its Master's Degree Programs. Only one-third of the Planning Programs in existence in the United States have been approved by the A.I.P.

CHEMISTRY

John Jacobus (Assoc Prof) presented a seminar at Auburn University Chemistry Department, Jan. 23 entitled "Conformation of NAD in Solution."

Recent publications: O. J. Jacobus published "Mechanism and Stereochemistry of 1,2, Diol Ring Closure to Tetrahydrofuran," J. Org. Chem., 38, 402 (1973).

W. Egan, S. Forsen (Prof, Chem, U. Lund, Sweden) and O. J. Jacobus, "Solution Conformation of NMN. An NOE Investigation," Chem. Commun. 42 (1973).

COUNSELING CENTER

Dr. Fred Steele and Dr. John Mulkeen observed and participated in models designed to improve effectiveness in a communications and human relations skills at a symposium conducted at the University of Georgia Center for Continuing Education. Plans were developed to offer workshops adapting these models for University students.

ELEMENTARY AND SECONDARY EDUCATION

Thomas H. Parry (Asst Prof) has been appointed program chairman for Division 7 (Association for Measurement and Evaluation in Guidance), American Personnel and Guidance Association, for the purpose of reviewing, selecting, and coordinating the Division's programs to be presented at the American Personnel and Guidance Association Convention in Atlanta, Ga., May 23-27.

HORTICULTURE

B. J. Skelton (Assoc Prof) recently presented a paper co-authored by R. A. Isaac (Univ. of Ga.) entitled "Comparative nutritional survey of selected peach orchards in Georgia and South Carolina," at the annual meeting of the combined Georgia and South Carolina Peach Councils in Savannah.

E. T. Sims, Jr. (Prof) was elected Chairman of the Postharvest Section of the Southern Region, American Society for Horticultural Science for 1973-74, at the annual meeting held in Atlanta, Feb. 4-6.

HORTICULTURE (Continued)

The following papers were presented at the Southern Region meeting by members of the department:

"FMC 'Spectra-Sort' maturity separations of mechanically harvested processing peaches," by R. A. Baumgardner (Assoc Prof), L. O. Van Blaricom (Prof), G. E. Stembridge (Assoc Prof), B. K. Webb (Prof), C. E. Hood (Assoc Prof), and W. E. Johnson (Assoc Prof).

"Effects of pre-harvest combinations of growth regulator sprays on peaches," by C. E. Gambrell, Jr. (Asst Hort) and E. T. Sims, Jr. (Prof).

"Tree spacing effects on yield and maturity of mechanically harvested peaches," by C. E. Gambrell, Jr., B. K. Webb, C. E. Hood, and T. R. Garrett (Ag Sci Assoc).

"Effects of growth retardants on the growth and development of chrysanthemums," by C. R. Johnson (Asst Prof) and J. R. Haun (Assoc Prof).

"The influence of handling and grading systems on the quality and storage life of mechanically harvested peaches for fresh market," by E. T. Sims, Jr., B. K. Webb, C. E. Hood, C. E. Gambrell, Jr., and C. C. Lin (Lab Tech).

"The influence of handling and grading systems on the quality and storage life of mechanically harvested tomatoes for fresh market," by E. T. Sims, Jr., C. E. Hood, B. K. Webb, T. L. Jones (Asst Prof) and C. C. Lin.

"Problems arising with implementation of self-instructional teaching concepts," by B. J. Skelton (Assoc Prof) and M. W. Jutras (Assoc Prof).

"Postharvest response of peaches treated with succinic acid-2,2-dimethylhydrazide," by L. O. Van Blaricom, and R. A. Baumgardner.

PHYSICS AND ASTRONOMY

A. L. Laskar (Assoc Prof) and L. M. Slifkin (Prof, Univ of N. C., Chapel Hill) had a paper published in Journal of Nonmetals in December entitled "Substitutional and interstitial Diffusion of Manganese Tracer in Silver Chloride Crystals."

J. R. Manson (Asst Prof) had a paper published in the Journal of Chemical Physics in November entitled "Transition Matrix for Single Phonon Inelastic Surface Scattering."

PHYSICS AND ASTRONOMY (Continued)

J. R. Ray (Assoc Prof) had a paper published in the Journal of Mathematical Physics entitled "Lagrangian Density for Perfect Fluids in General Relativity."

J. R. Ray gave a colloquium at the University of South Carolina entitled "Symmetry in General Relativity."

B. V. Bronk (Assoc Prof) was invited to discuss thermal sensitization of mammalian cells with some medical men interested in possible therapeutic use of hyperthermia at a seminar at the National Cancer Institute in Washington, D.C.

B. V. Bronk published an article in the January issue of Nuclear Instruments and Methods entitled "Partial Deconvolution as a Means of Studying the Limitations on Resolution of Spectra Imposed by Noise" in which a particular approach to numerical solution of Fredholm integral equations with a noise term is discussed.

PLANT PATHOLOGY AND PHYSIOLOGY

The following papers were presented at the annual meeting of the Southern Division, American Phytopathological Society at Atlanta, Ga., Feb. 4-7:

G. C. Kingsland (Assoc Prof) - "Physical Seed Treatments Influence the Survival of Certain Microorganisms Associated with Barley Seed."

W. M. Dowler (USDA) - "Characterization of Green Fluorescent Pseudomonads Isolated from Apparently Healthy Dormant Peach Trees" (with D. J. Weaver, USDA, Byron, Ga.)

L. W. Baxter (Prof) - "Studies on Tolerance of Glomerella cingulata (Camellia Isolate) to High Temperature" (with Susan Fagan).

F. H. Smith (Assoc Prof) - "The Cylindrocladium Situation on Peanuts and Other Crops in South Carolina."

N. D. Camper (Assoc Prof) and G. E. Carter (Grad Res Asst) attended the annual meeting of the Southern Weed Science Society at New Orleans, La., Jan. 15-18. Mr. Carter presented a paper entitled "Soil Microbial Studies with Trifluralin" and placed fourth in the regional competition of graduate student papers. Dr. Camper presented a paper entitled "Studies With Isolated Plant Cells and Selected Herbicides."

PLANT PATHOLOGY AND PHYSIOLOGY (Continued)

N. D. Camper and G. E. Carter visited (by invitation) Eli Lilly and Company in Greenfield, Ind., for discussion of research results. Mr. Carter presented a seminar on his research.

W. M. Dowler (USDA) attended the South Carolina-Georgia Peach Council Meeting at Savannah, Ga., Jan. 21-24. He presented a report on the activities of the three-state (S.C., N. C., and Ga.) work group on the peach tree short life problem.

E. I. Zehr (Asst Prof) represented the American Phytopathological Society and Clemson University at the organizational meeting of the Pesticides Committee of the American Society for Testing and Materials in Philadelphia, Pa., Jan. 17-18.

N. D. Camper, J. C. Hsu (Grad Res Asst), and G. E. Carter attended the annual meeting of the Weed Science Society of America at Atlanta, Ga., Feb. 6-8. Mr. Carter (with Dr. Camper) presented a paper entitled, "Auxin-Like Activity of Two Pyridazinone Herbicides," and Mr. Hsu (with Dr. Camper) presented a paper entitled, "Growth of a Soil Bacterium, Erwinia carotovora, in the Presence of loxynil."

POLITICAL SCIENCE AND SOCIOLOGY

Harold Albert (Asst Prof) presented a paper, "Environmental Lobbying: Taking the Right Issue to the Right Place at the Right Time," to the Rural Sociology Division of the American Association of Agricultural Workers in Atlanta, Feb. 6.

Ray Rimkus (Asst Prof) was featured in the South Carolina ETV Guide (p. 21 of the January issue) for his weekly radio broadcast, "Political Issues," which is aired on WEPR.

POULTRY SCIENCE

The following Poultry Science staff members presented papers at the Association of Southern Ag. Workers meeting, Feb. 4-7:

Su-Ming Hou (Grad Asst), J. E. Jones (Assoc Prof), and M. A. Boone (Prof), "An Injection Technique for Extended Avian Anesthesia."

K. A. Wall (Grad Asst), D. L. Wicker (Grad Asst), and J. E. Jones, "Effect of Restricted Light During the Growing Period on Semen Quality and Fertility of Turkey Toms."

D. L. Cross (Asst Prof), J. A. Boling (Assoc Prof, Univ of Ky), N. W. Bradley (Prof, Univ of Ky), and D. G. Ely (Assoc Prof, Univ of Ky), "Perfusion of the Isolated Ovine Hind Limb."

POULTRY SCIENCE (Continued)

B. D. Barnett (Prof and Hd), "Toxicity of Pokeberries (Fruit of Phytolacca Americana Large) for Turkey Poults."

J. E. Jones (Assoc Prof) presented a paper "Effect of Dietary Fat on the Turkey's Ability to Withstand Hyperthermia" coauthored by B. D. Barnett in the annual meeting of the Southern Region Avian Physiology and Bioengineering Study Group.

B. W. Bierer (Prof) was recognized as a "distinguished agriculturist" by the South Carolina Farmers Cooperative Council at their annual meeting in Columbia on Feb. 8. Dr. Bierer's fowl cholera research and his long-time diagnostic service were noted as outstanding contributions.

ENVIRONMENTAL SYSTEMS ENGINEERING

John H. Austin (Prof) has been selected as chairman of the Task Force on Educational Needs-two-year Technician and four-year Technologist. This Task Force will present its report at the Third National Conference on Environmental Engineering Education at Drexel University in August, 1973.

The Environmental Protection Agency held its annual review session for the national project Criteria for Establishment of Two Year Post High School Wastewater Technology Programs at Clemson on Feb. 22-24. The Environmental Systems Engineering Dept. at Clemson has been instrumental in developing the curriculum for this program.

L. G. Rich (Prof) participated on Feb. 12-14, in EPA site-visits to Rice University, Tuskeege Institute and Georgia Tech.

T. M. Keinath (Assoc Prof) and K. D. Tracy (Grad Stu) will be presenting a paper entitled, "Dynamic Model for Clarification and Thickening of Actiuated Sludge" at the 24th national meeting of the American Institute of Chemical Engineers. This meeting will be held Mar. 11-15 in New Orleans at the Fairmont-Roosevelt and Marriott Hotels.

GEOLOGY

Recent publications: R. D. Hatcher, Jr. (Assoc Prof), "Recent Trends in Thought and Research on Southern Appalachian Tectonics," Southeastern Geology, Vol. 14, No. 3, September 1972.

R. D. Hatcher, Jr., "Developmental Model for the Southern Appalachians," Geological Soc. of America Bulletin, v. 83, September 1972.

INTERDISCIPLINARY STUDIES

A. M. Weinstein (Asst Prof) presented a seminar at the University of Oklahoma Health Science Center in the School of Dental Medicine entitled "Properties of Self-Curing Polymethylmethacrylate" on Jan. 28.

A. M. Weinstein presented a paper entitled "Strain Rate Dependent Mechanical Properties of Polymethylmethacrylate" at the Orthopaedic Research Society - 19th Annual Meeting, Feb. 1 in Las Vegas.

B. W. Sauer (Asst Prof) presented a paper at the Fourth Annual Meeting of the Biomedical Engineering Society in Los Angeles on Jan. 30 entitled, "Attachment of Prostheses to the Musculo-Skeletal System - the Interface Problem." Other co-authors of the paper were S. F. Hulbert (Assoc Dean), F. W. Cooke (Assoc Prof and Hd), J. J. Klawitter (Asst Prof), D. D. Moyle (Asst Prof), and A. M. Weinstein.

B. W. Sauer, S. F. Hulbert, J. J. Klawitter, and J. R. Matthews (former Grad Stu) presented a paper at the San Diego Biomedical Symposium on "Innovation in Bio-medicine" entitled "Use of Porous Aluminum Oxide for Direct Skeletal Fixation of Orthopedic Implants," Feb. 2.

ZOOLOGY

A. S. Tombes (Assoc Prof) presented a paper entitled, "The Infracerebral Complex of Perinereis cultrifera Grube (Annelida: Polychaeta) at the annual meeting of the American Association for the Advancement of Science in Washington, D.C. An abstract of the presented information was published in the American Zoologist 12(4) 664.

Johnny B. Sandifer (former Grad Stu) and A. S. Tombes had a paper published in Tissue and Cell, Volume 4, pp. 437-446, entitled, "Ultrastructure of the Lateral Neurosecretory Cells During Reproductive Development of Sitophilus Granarius (L.) (Insecta: Coleoptera).

CALENDAR OF CAMPUS EVENTS

March 1- March 26	Thurs.- Mon.		Architecture exhibit - drawings from the Dillard Collection - Lee Hall Gallery.
March 1- March 3	Thurs.- Sat.		ACC Swimming Meet.
March 1	Thurs.		Football spring training begins.
March 1	Thurs.	3:45 p.m.	Clemson University Woman's Club -- "Fashion Profile For Spring" -- Meyers Arnold - Clemson House.
March 1- March 3	Thurs.- Sat.	8:00 p.m.	Clemson Players - "See How They Run" - Daniel Hall Auditorium, admission free, open to the public.
March 1	Thurs.	12:00 noon	Clemson Tip-off Club, Clemson House.
March 1	Thurs.	4:00 p.m.	Kenneth D. Tracy, Ph.D. Candidate ESE - Destabilization of Activated Sludge Suspensions.
March 2- March 3	Fri.- Sat.		Forensic Union debate at Eastern Kentucky.
March 2	Fri.		Basketball - interfraternity; double elimination.
March 3	Sat.	10:00 a.m.	Clemson Rifle Team at N. Ga. College.
March 5	Mon.	8:00 p.m.	Spanish Feature Film (English subtitles)-Daniel Theatre.
March 5	Mon.		Preliminary reports due.
March 7	Wed.	1:00 p.m.	CU Speakers Bureau - Ralph Nader - Tillman Aud.
March 8- March 10	Thurs.- Sat.		ACC Basketball Tournament - Greensboro, N.C.
March 8	Thurs.	8:00 p.m.	Les Ballets Africains - Littlejohn Coliseum.
March 8	Thurs.	8:00 p.m.	Graduate wives meeting - YMCA.
March 8	Thurs.	4:00 p.m.	Gerald L. Shell, Director of Sanitary Engineering Research and Development, Eimco Division, Envirotech Corporation (R&D Activities on Advanced Wastewater Treatment Processes) - 100 Earle Hall.
March 9	Fri.		Ft. Hill Clemson Club Annual Ladies Night.
March 9	Fri.		Baseball - West Virginia.
March 10	Sat.	10:00 a.m.	Clemson Rifle Team vs. Auburn at Clemson.
March 11	Sun.		Baseball - North Carolina State.
March 12	Mon.	8:00 p.m.	French Feature Film (English sub-titles) - Daniel Theatre.

CALENDAR OF CAMPUS EVENTS Continued

March 12	Mon.	7:30 p.m.	Townsend M. Belser, Jr., will speak on "Nuclear Power: The Answer to the Energy Crisis, or an Albatross?" in Daniel Auditorium.
March 13	Tues.	8:00 p.m.	Houston Symphony Orchestra, Lawrence Foster, conductor, and piano soloist Horacio Gutierrez, Littlejohn Coliseum.
March 14	Wed.	2:00 p.m.	Dr. Jean Quint Benoliel will speak on -- "The American Way of Dying" - Daniel Hall Auditorium.
March 14	Wed.	3:00 p.m.	National Dividend Foundation Seminar, Brackett Hall Auditorium.
March 15	Thurs.	7:30 p.m.	"The Face of Sweden" - P&AS Auditorium.
March 15	Thurs.		Baseball - Central Michigan.
March 15	Thurs.		Swimming meet - women, men; March 3-10, entries.
March 15	Thurs.	4:00 p.m.	Donald J. O'Connor, Professor, Manhattan College (Modeling and Simulation of Estuaries), 302 Rhodes Center.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER
INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 15 March 15, 1973

ENDOWED CHAIR IN BIOENGINEERING ANNOUNCED

Clemson University announced March 2 the establishment of an endowed chair in bioengineering made possible by a deferred gift of $500,000 to the Clemson University Foundation by Thomas M. Hunter, a 1909 Clemson graduate, and his wife, the late Mrs. Louise M. Hunter.

"The Hunter Endowed Chair of Bioengineering," established in honor of Hunter's brother and long-time Clemson professor Joseph E. Hunter (1874-1952), will eventually bring to the Clemson faculty a nationally recognized scientist who will teach, conduct research and publish in the relatively new field of bioengineering.

The chair is the first fully endowed chair ever established at Clemson and one of the few of its kind in the United States.

The Hunter donation is in the form of an irrevocable deferred gift to Clemson of specific assets, presently valued at more than $500,000, from which the donor will receive the income for life.

A resident of Short Hills, N.J., Thomas M. Hunter retired in 1969 at the age of 83 after a distinguished business career as an inventor, executive and consultant in the field of electrical power transformers. He was president of the American Transformer Co. from 1933-48.

Mrs. Hunter (1889-1972) retired in 1942 after a 35-year career as an elementary school educator in Newark, N.J., remaining active in church and civic affairs throughout her life.

Joseph "Little Joe" Hunter, whose memory the endowed chair will honor, was a graduate of Clemson's first class who dedicated most of his life to teaching mathematics at Clemson and is remembered as one of its most beloved professors.

"Mrs. Hunter felt as I do that higher education has made and will continue to make this country the great nation it is," says Hunter. "The pioneering work in bioengineering under way at Clemson exemplifies that belief, and I am delighted to see engineering knowledge being applied so creatively to solving medical problems and relieving human suffering."

Currently the university has committed more than 25 faculty members and 40,000 square feet of research facilities to its bioengineering program.

Clemson bioengineers are developing and evaluating materials for use as artificial implants -- bone replacements, heart valves, tendons, hip joints, veins and arteries, teeth, and as the basic building materials for plastic and reconstructive surgery. (Continued on page 2.)

ENDOWED CHAIR IN BIOENGINEERING ANNOUNCED Continued

They are learning how computers can be used to monitor and study complex bodily functions, and how engineering know-how can be better used in manufacturing pharmaceuticals, industrial chemicals and in treating human illness.

The College of Engineering has pending for funding, research proposals in excess of $2-million. Clemson's yearly international symposium on bioengineering research attracts scientists and physicians in the field from throughout the world.

The bioengineering program is also deeply involved in extension education activities with its faculty providing direct support to more than 40 different medical programs during the past six years.

"The Hunter Endowed Chair of Bioengineering will strengthen immeasurably Clemson's increasing international reputation in the field of bioengineering teaching and research," says Stanley G. Nicholas, Clemson's vice president for development. "This gift also indicates the growing success of the university's deferred gifts program and the increasing awareness of our friends and alumni of the value of such contributions," he says.

CLEMSON UNIVERSITY DEVELOPMENT PROGRAMS REPORT $1,374,404 IN PRIVATE SUPPORT FOR 1972

Private support totaling $1,374,404 was received by Clemson University during 1972, Stanley G. Nicholas, vice president for Development, has announced. In addition, the University received its first gifts through the Clemson University Foundation's new Deferred Giving Program totaling $155,924.

A breakdown of the gifts by source follows:

Alumni Loyalty Fund, $1,078,916 (includes $2,125 from non-alumni Parents and $12,343 from Corporate Matching); Business and Industry, $77,769; Non-alumni Faculty and Staff, $971; Foundations, $116,559; Friends, $61,231; Gifts-in-Kind (Equipment and Materials), $23,539; and Professional and Trade Associations, $15,419.

(An article in this issue of the Clemson Newsletter contains details of the record-breaking Alumni Loyalty Fund report.)

Although this is the first year private support has been reported on a calendar-year basis, a significant increase is evident. A previous report covering an 18-month period -- July 1, 1970, through December 31, 1971 -- totaled $920,074 compared to 1972's 12-month report of $1,374,404.

The current report of $1,374,404 exceeds the first goal of a ten-year plan begun in 1972 which provides the blueprint for Clemson University's total development program. The plan calls for private support totaling $17,139,000 by 1982. An additional $42,500,000 -- most of which the University will receive from public sources -- is needed for renovation and construction of new facilities.

In addition to progressing financially during 1972, the Clemson University Development Programs advanced operationally. The constitution and by-laws of the Clemson University Foundation were revised to enable its directors to more effectively solicit, manage and disburse funds for the advancement of the University.
(Continued on page 3.)

CLEMSON UNIVERSITY -- PRIVATE SUPPORT Continued

Plans for giving through charitable remainder trusts, including the pooled income fund, the unitrust and the annuity trust are now available as part of the newly established Deferred Giving Program. Bequests, real estate and assigned life insurance policies are also being received as deferred gifts.

Private gifts to Clemson help support the University's academic programs in a number of ways including professorships (presently 15 salary supplements), visiting professorships, and other faculty-related programs for research, travel and publishing. Other gifts contribute to the expansion of library holdings and scholarships for needy and gifted students.

Besides seeking to expand and increase these programs, funds are being sought to fully endow a chair in each of the nine colleges.

ALUMNI LOYALTY FUND TOPS MILLION DOLLAR MARK

Three bequests from alumni that totaled $790,408 sent the total income of the 1972 Alumni Loyalty Fund to a record $1,078,916.40. A total of 4,225 alumni made gifts (not including Alumni Center gifts), the highest participation since 1969.

"We are extremely grateful for this excellent response to Clemson's need," said Joe Sherman, director of Alumni Relations. "We must continue to build and maintain this kind of dedication. It is also encouraging that increasing numbers of alumni are thinking of Clemson when they draw their wills."

On the basis of what might be considered "annual alumni giving," $262,582 was received, just missing last year's record for this category by $139.

A new dimension was added to the Loyalty Fund last year with the launching of a Parents Fund that offers the parents of Clemson students an opportunity to share in the building of a greater Clemson. In 1972, a total of 55 non-alumni parents gave $2,125 to the Parents Fund.

In addition, Honorary Alumni made gifts totaling $4,519.

Alumni deferred gifts, made either as participants in the newly created Clemson University Foundation Pooled Income Fund or in the form of assigned life insurance policies, totaled $140,398.

The Loyalty Fund's total unrestricted income was $149,710.46. Additionally, alumni made restricted gifts totaling $71,923 and Alumni Center gifts of $66,875.

It is from the unrestricted income that grants are made to the University as reflected in the "Grants to the University" statement accompanying this article. (Continued on page 4.)

ALUMNI LOYALTY FUND Continued

Grants To The University

These grants were made by the Alumni National Council from the unrestricted income of the 1972 Loyalty Fund and represent major needs as determined by the University Administration and the Alumni National Council.

R. F. Poole Scholarships — — — — — — — — — **$16,000.00**

This program, administered by the University's Scholarships and Awards Committee, provides $1,000 annually to 16 Alumni Scholars, four in each undergraduate class.

Alumni Professorships — — — — — — — — — **17,120.00**

These are salary supplements awarded to nine distinguished professors for outstanding classroom teaching.

Alumni Visiting Professorships — — — — — — — **25,000.00**

This grant is designed to enrich campus intellectual life and promote stimulating contacts by bringing to Clemson eminent faculty members and scholars for varying periods.

University Contingency — — — — — — — — — **20,000.00**

This grant enables the President of Clemson University to finance expenses vital to University welfare that cannot be funded from other sources.

Graduate School — — — — — — — — — — **7,000.00**

Awarded to the University's School of Graduate Studies to assist its overall program of graduate education.

Faculty Research & Development — — — — — — — **6,200.00**

Awarded to aid faculty recruitment and to encourage and expand faculty basic research.

Restoration of the "Clemson Paintings" — — — — **5,000.00**

The collection of paintings collected by Thomas Green Clemson had, through the passing years, arrived at a serious state of disrepair. This grant will finance the restoration of that valuable collection.

Student Programs, Service and Assistance — — — **3,500.00**

This grant supplements student academic interest by assisting with extra-curricular programs and services.

Permanent Endowment — — — — — — — — — **5,785.13**

A portion of each year's income is being used to help build Clemson's inadequate permanent endowment.

Alumni Reserve Fund — — — — — — — — — **10,000.00**

Through this "savings account" the Alumni Association insures financial stability for the future.

The Clemson World — — — — — — — — — — **9,708.57**

This communications channel for alumni also serves the function of an official University publication.

Alumni Records/Services — — — — — — — — — **24,896.76**

The Alumni Service Program includes the maintenance of all alumni biographic and gift records.

TOTAL — — — — — — — — — — — **$149,710.16**

TRUSTEE L.D. HOLMES DIES

Lewis David Holmes Sr., a trustee of Clemson University, died February 27 at his home in Johnston.

Born in Edgefield County, he was elected a trustee in 1960. A leading agriculturalist in South Carolina, he was owner and operator of L.D. Holmes and Sons Farm for more than 60 years.

He and his family received the Master Farm Family award from Progressive Farmer Magazine in 1939. He also received the Pioneer Services Award given by the National Peach Council and was supervisor of the Soil Conservation Service.

He served on the organizational committee of the S.C. Farm Bureau and was a member of its first state board. He was recently awarded a plaque for his service to the Farm Bureau.

He is survived by his widow, three daughters, two sons, and a sister.

WEATHERSPOON COLLECTION SET FOR LEE GALLERY

A traveling exhibition of 30 drawings by 20th century American artists will be presented at Clemson University's Rudolph Lee Gallery March 15 - April 8.

The exhibition, on loan from Weatherspoon Art Gallery of the University of North Carolina at Greensboro, includes works in ink, charcoal, pencil, watercolor and other media.

Historically, they range from an ink drawing done in 1907 to four works executed in 1969. The oldest is "Stroller, Spain" by Joseph Pennell.

Two drawings in the exhibit were considered of such quality that they were included in earlier traveling exhibitions from Weatherspoon, which featured paintings and drawings. They are Muckey's "D-10-66," an ink "Op" work, and Phillip Pearlstein's realistic wash drawing "Models in the Studio."

This is the first such show sponsored by Weatherspoon to be devoted exclusively to drawings.

All the drawing are from Weatherspoon's permanent Dillard Collection, which contains 131 works. Virtually the entire collection was acquired from the annual "Art on Paper" Exhibition, a national show of one-of-a-kind works on paper or cardboard.

Lee Gallery hours are 8:30 a.m. - 4:30 p.m., Monday through Friday. The gallery's exhibitions are sponsored by Clemson's College of Architecture and the Clemson Architectural Foundation.

STUDENT ALUMNI COUNCIL FORMED

A new service organization at Clemson University has energetically set out to prove that students can assume an active voice in the Clemson Alumni Association even before they graduate.

A 30-member Student Alumni Council (SAC) -- with representatives from the same geographical districts as the parent Alumni Association, plus at-large appointees and members from the six major student service organizations -- will act as an official channel to the Alumni National Council for the 8,579 main-campus student body.

First members of the new group were appointed by Student Body President Samuel Crews of Hampton, who is a voting member of the National Council.

"The Alumni Association provides financial assistance to many student activities, such as Homecoming and R.F. Poole Alumni scholarships, and helps fund some student organizations," says Crews. "The goal of the Student Alumni Council is to make the parent Alumni Association's mission more visible and to get students more directly involved in Alumni programs."

Joe Turner, the Alumni Association's field representative and advisor to SAC, believes that "providing students the opportunity now to become a part of the association's decision-making process will result in more active and better informed alumni in the future." (Continued on page 6.)

STUDENT ALUMNI COUNCIL FORMED Continued

Turner notes members of SAC will meet periodically with the parent Alumni National Council and eventually will participate in meetings held annually by the 65 Clemson alumni clubs throughout the state and nation.

Mendal Bouknight, a junior from Irmo and SAC's first president, says the organization already is planning to tackle one major student problem -- summer jobs.

"The Student Alumni Council is establishing a summer job referral service where alumni and students can work together to match interests," Bouknight says.

The student council also will distribute information wall cards to each dormitory room. Other plans include an alumni organization program for freshmen and an awards program to honor members of the Clemson faculty whom students feel deserve recognition.

CALENDAR OF CAMPUS EVENTS

March 15-16	Thurs.-Fri.		CSU Movie "Vanishing Point" Holtzendorff Hall (YMCA).
March 16	Fri.		Baseball - Maryland.
March 16	Fri.		Spring holidays begin after last class.
March 16	Fri.	10:00 a.m.	Clemson Rifle Team at Davidson.
March 17	Sat.		Baseball at Mississippi State.
March 19	Mon.		Baseball at Mississippi State.
March 20-21	Tues.-Wed.		Baseball at Ole Miss.
March 20-22	Tues.-Thurs.		"Textile Processing and Quality Control" short course will be held in the Sirrine Auditorium of the College of IM & TS. Lecturers will be Dr. Evans LaRoche, Professor Quality Control and Statistics and Dr. E.A. Vaughn, Assistant Professor of Textiles.
March 22-25	Thurs.-Sun.		Baseball at Alabama.
March 22-25	Thurs.-Sun.		Forensic Union participation in National Model U.N. at Harvard.
March 26	Mon.		Classes resume.
March 26	Mon.		Volleyball - men, women; round robbin; entries Mar. 12-22.
March 26-28	Mon.-Wed.		CSU Movie "The Salzburg Connection."

(Calendar continued on page 26.)

FORT HILL CLEMSON CLUB SCHEDULES LADIES NIGHT AND MAN OF THE YEAR BANQUET

The Fort Hill Clemson Club will present its annual Ladies Night and Man of the Year Banquet Friday, April 13, eve of the annual Orange-White spring football game, at the Clemson House.

Coach "Red" Parker will be a special guest.

Alumni, students and friends of Clemson are invited to attend. More details about time, cost and where to purchase tickets will appear in the next issue of Clemson Newsletter.

MINUTES OF THE ADMINISTRATION-FACULTY-STUDENT COUNCIL, JAN. 18, 1973

Chairman W. Thomas Lavender called the regular meeting to order at 1:35 p.m. in the Board Room of the Student Center, Johnstone Hall. Those present were: Chairman Thomas Lavender, John Fulton, E.H. McCarter, George Moore, A.W. Rigsby, Ernest Rogers, David Rowe, and Secretary M.N. Lomax. Absent were: James Fanning, and James McMillan.

ACTION: Colonel McCarter's motion calling for the approval of the minutes of the meeting on November 16 as distributed was seconded and passed.

Discussion concerned the grading system with mention being made of the past proposals of the Student Senate, and the plans of the Undergraduate Council in considering a "no credit" grading system.

ACTION: Professor Rogers made a motion that the matter of grading systems be referred to the Admissions and Scholarship Committee of the Faculty Senate and the Academic Affairs Committee of the Student Senate. Their purpose would be to investigate the inequities and pitfalls in the present system and to recommend action for eliminating such shortcomings. The motion was seconded and passed.

The Student Senate new guidelines for residence hall visitation were discussed briefly.

ACTION: A motion by David Rowe that the next meeting be scheduled at 1:00 p.m. February 15, in the President's Conference Room, Sikes Hall, was seconded and passed.

The Council was adjourned at 2:40 p.m.

MINUTES OF UNDERGRADUATE COUNCIL, FEBRUARY 2, 1973

The Undergraduate Council met in the conference room, E-103 Martin Hall. The following were present: Dean Claud B. Green (Chairman), Carolyn Briscoe, Lamar H. Brown, Robert L. Cross, Arline M. Duvall, C. C. Fain, Lawrence W. Gahan, Robert McLellan (Visitor), Jerome V. Reel, Malcolm J. Skove, Chester R. Smith, Kenneth N. Vickery, and George von Tungeln.

The minutes of the December 1, 1972 meeting were approved as distributed.

Dean Green announced that Honors and Awards Day is scheduled for April 11, 1973.

There was a motion that the catalog wording of "AS or MS Elective" in both semesters of the freshman and sophomore years be changed to read "Elective." The motion was seconded and approved.

A subcommittee consisting of Lawrence W. Gahan, Chairman, Luther W. Baxter, and Lamar H. Brown was appointed to study the request from the College of Agricultural Sciences for a major in Community and Resource Development.

Dean Green announced that an ad hoc committee will be appointed to study the current grading system of the University.

The following new courses and curriculum changes were approved:

COLLEGE OF AGRICULTURAL SCIENCES

Ag Ec	H452	Agricultural Policy
Ag Ec	H456	Prices
Hort	301	Horticulture and Man
Hort	470	Horticultural Therapy
Fd Sci	321	Food Processing, replaces Fd Sci 311.
Fd Sci	322	Food Processing, replaces Fd Sci 312.
Fd Sci	323	Food Processing Laboratory, replaces Fd Sci 313.
Fd Sci	324	Food Processing Laboratory, replaces Fd Sci 314.
Fd Sci	401	Food Chemistry I, replaces Fd Sci 413.
Fd Sci	402	Food Chemistry II, replaces Fd Sci 416.
Fd Sci	422	Quality Assurance and Sensory Evaluation, replaces Fd Sci 412.
Fd Sci	424	Quality Assurance and Sensory Evaluation Lab, replaces Fd Sci 414.
PS	363	Propagation of Game and Exotic Birds

MINUTES OF UNDERGRADUATE COUNCIL, FEBRUARY 2, 1973 (Continued)

COLLEGE OF EDUCATION

Ag Ed	431	Methods in Environmental Education. Change in title and course description.

COLLEGE OF ENGINEERING

Ag E	433	Design Criteria for Plant and Animal Environment
EG	115	Engineering Graphics for Industrial Education. Change in course number and credit hours.
EG	116	Graphical Technology for Industrial Education. Change in course number and in credit hours.

Approval was given for the following changes in the Agricultural Engineering Curriculum:

Delete E&CE 320, Electronics I in the second semester, Junior year; add AgE 433, Design Criteria for Plant and Animal Environment.

Approval was given for changes in the undergraduate engineering curricula to provide a minimum of 15 credit hours per semester (excluding Military Science).

COLLEGE OF FOREST AND RECREATION RESOURCES

Approval was given for the following changes in the Freshman year, Forest Management Curriculum:

In the first semester, Freshman year delete Biol 101, Principles of Biology, add Bot 101, Plant Biology and Bot 103, Laboratory in Plant Biology.

In the second semester, Freshman year delete Bot 102, Principles of Botany and Zool 102, Principles of Zoology; add Zool 101, Animal Biology and EG 105, Engineering Graphics.

Approval was given for revision of the Recreation and Park Administration Curriculum. The revision will enable students to select one of the three "emphasis areas" including recreation resource management, recreation and park administration, and rehabilitative recreation.

COLLEGE OF LIBERAL ARTS

Approval was given for the basic curriculum for the Bachelor of Arts degree.

COLLEGE OF NURSING

Approval was given for the following changes:

In the first semester, Freshman year delete Biol 101, Principles of Biology; add Zool 101, Animal Biology and Zool 103, Animal Biology Laboratory.

In the second semester, Freshman year delete Zool 102, Principles of Zoology and Zool 104, Laboratory exercises in Zoology; add History Elective, 3 credit hours.

MINUTES OF UNDERGRADUATE COUNCIL, FEBRUARY 2, 1973 (Continued)

COLLEGE OF NURSING (Continued)

In Summer Session following Sophomore year delete History Elective, add Soc 202, Social Problems.

In first semester, Junior year delete Soc 202; add Elective, 3 credit hours.

COLLEGE OF PHYSICAL, MATHEMATICAL AND BIOLOGICAL SCIENCES

Astr	307	Cosmology
Astr	412	Spherical Astronomy
Astr	421	Introduction to Radio Astronomy
Biol	100	Introduction to the Biological Sciences
Bot	331	Introductory Plant Taxonomy
Math	481	Seminar in Mathematics
Phys	401	Senior Thesis, 1-3 cr.
Phys	402	Senior Thesis, 1-3 cr.
Zool	456	Parasitology

Approval was given for a mathematics major in the Bachelor of Arts Curriculum and a mathematics major in the Bachelor of Science Curriculum.

Approval was given for revision of the following curricula to provide a minimum of 15 credit hours per semester (excluding Military Science):

Botany
Chemistry - B.S. Degree
Chemistry - B.A. Degree
Geology - B.S. Degree
Geology - B.A. Degree
Microbiology
Physics - B.S. Degree
Zoology

The following courses were tabled:

COLLEGE OF EDUCATION

Ed	469	Characteristics of Children with Emotional Handicaps
Ed	470	Characteristics of Children with Learning Disabilities
Ed	474	Educational Procedures for Children with Emotional Handicaps
Ed	475	Educational Procedures for Children with Learning Disabilities

OFFICE OF THE DEAN OF UNDERGRADUATE STUDIES
EVALUATION OF UNDERGRADUATE TRANSFER CREDIT

Certain recent events indicate that it may be well to review what our procedures at Clemson University are for evaluating undergraduate transfer credit. These procedures apply to colleges, to the technical education centers, and to any other agency from which Clemson might wish to consider accepting transfer credit.

1. The academic area in which the course is taught at Clemson determines the kind and amount of credit which shall be given for required courses in any Clemson curriculum. For example, if mathematics is required in a particular curriculum at Clemson, it is the Department of Mathematical Sciences which decides if the course being evaluated meets the criteria for transfer credit on a course equivalency basis.

2. Courses being transferred for elective credit, however, may be evaluated by the academic area in which the student is majoring. For example, if the curriculum in which a student is majoring permits him to take elective courses in a given area, one of which might be mathematics, then the determination as to whether or not the student shall receive elective transfer credit for a course in mathematics is made by the department or college in which the student is majoring.

3. Courses in subject-matter areas not taught at Clemson University may be evaluated for elective transfer credit by the department or college in which the student is majoring.

GEOLOGY

Professor Robert L. Nichols will be a Visiting Geology Lecturer on campus April 5 and 6. He is a noted polar geologist, having carried out extensive research in Greenland, Alaska, Antarctica and South America. He will lecture Thursday at 7:30 p.m. in Room 131, Brackett Hall on, "Man Hauling in the Antarctic." Friday, April 6 he will deliver lectures at 8:00 a.m. in Room 235, Brackett Hall on, "The Geomorphology of the Antarctic" and again at 10:00 a.m. on "Catastrophics in Geology."

AIR FORCE ROTC

The Headquarters of the Air Force Reserve Officer Training Corps at Maxwell AFB, Alabama has announced the signing of an agreement between Clemson University, Anderson College, and the AFROTC Detachment at Clemson, which will allow Anderson College students to participate in the Air Force ROTC Program at Clemson University. This agreement will afford an opportunity for Anderson College students to work toward Air Force commissions and flying or support duty with active units of the U. S. Air Force.

The Clemson Department of Aerospace Studies will enroll Anderson College students in AFROTC courses at the Freshman and Sophomore level starting at Clemson in the Fall of 1973. Not only will this afford a broader base for input into the advanced AFROTC program during the Junior and Senior years, but it will permit qualified students at Anderson College to participate in the 4 year and 3 year scholarships provided by the Air Force ROTC. These scholarships cover full tuition, all books, lab fees, and incidental fees. In addition, the scholarship student receives $100.00 per month while enrolled.

The AFROTC Detachment at Clemson produces approximately 50 officers each year and has consistently ranked in the top 10 percent in production for all colleges and universities hosting Air Force ROTC.

LECTURE SERIES INAUGURATED BY COLLEGE OF LIBERAL ARTS

The College of Liberal Arts of Clemson University will inaugurate a series of annual lectures on March 26 and March 28 in Daniel Hall Auditorium on the Clemson campus. The general public is invited.

At 8:00 p.m. on Monday, March 26, Dr. Thomas Szasz, Professor of Psychiatry at the State University of New York at Syracuse and one of the country's leading forensic psychiatrists, will lecture on "Mental Illness as Metaphor." An outspoken opponent of many practices in the treatment of mental illness, Dr. Szasz is the author of numerous books, including The Myth of Mental Illness, The Ethics of Psychoanalysis, and The Manufacture of Madness.

On Wednesday, March 28, at 8:00 p.m., Professor Louis D. Rubin, Jr. of the University of North Carolina at Chapel Hill will lecture on the topic, "The Barber Kept on Shaving: Two Modes of the American Comic Imagination." Dr. Rubin is considered by many scholars in his field to be the outstanding scholar-critic on modern American fiction and modern Southern literature. His numerous books include Thomas Wolfe: The Weather of His Youth, The Faraway Country, The Teller in the Tale, The Curious Death of the Novel, and The Writer in the South. He is the author of a novel, The Golden Weather, former associate editor of the Richmond News Leader, and a columnist for the Charlotte Observer.

MINUTES OF SCHOLARSHIPS AND AWARDS COMMITTEE MEETING, JANUARY 26, 1973

The Scholarships and Awards Committee met at 3:30 p.m. in Room E-103, Martin Hall with Dr. W. C. Godley presiding. Present were: W. C. Godley, W. C. Whitten, G. E. Coakley, P. A. Steiner, C. B. Green, R. H. Hunter, N. R. Bauld, C. H. Sawyer, A. M. Bloss, S. G. Delony, J. R. Warner, C. Blanford, N. L. Stone, and J. T. Lazar.

Dr. Godley reported on problems of two R. F. Poole Scholars, one of whom had been hospitalized and found Incompletes lowering his GPR, the other of whom wanted part of his scholarship to pay his summer school expenses for early graduation. After discussion, the committee agreed to retain the first Poole Scholar for a further semester and that the scholarship could be used in the summer for the second.

Dr. Godley announced that the American Vocational Association Scholarship awarded by the American Vocational Association in the amount of $300 will go to a Clemson student for 1973-1974. The student will be in Vocational Industrial/ Technical Education. A motion was made by Dr. Lazar, seconded by Dr. Bauld, to refer the letter to the Industrial Education Department for a recommendation for this scholarship; the motion passed.

The College of Agricultural Sciences recommended Miss Paul Ruth Monroe, GPR 3.7, for the Borden Scholarship Award for 1972-1973. Dean Coakley moved, Colonel Bloss seconded, that Miss Monroe receive the Borden Award; the motion passed.

Dr. Godley distributed a report by a sub-committee established to study recommendations for possible changes in policy for the Scholarships and Awards Committee. The Committee was asked to read the report and be able to discuss it at a later date.

Dr. Godley announced that effective immediately Dr. Corinne Sawyer would assume the duties as Chairman of the Scholarships and Awards Committee. Dean Green was then recognized and expressed appreciation to Dr. Godley for the fine job he has done. (Dr. Godley has been appointed Associate Director of the South Carolina Agricultural Experiment Station.) It was announced that Mrs. King will assist the committee in preparation of the Honors and Awards Day program and in correspondence relating to the selection of the Poole Scholarships.

The meeting adjourned at 3:55 p.m.

J. T. Lazar, Jr., Secretary

MINUTES OF THE HONORS COUNCIL MEETING, JANUARY 30, 1973

The meeting of the Honors Council was held in Room E-103, Martin Hall, at 3:00 p.m. Present: W. C. Godley (Chairman), Corinne Sawyer, B. E. Gilliland, Elizabeth Hall, J. L. Stevenson, J. D. Maxwell, Patricia W. Wannamaker, W. Arnold Phillips, W. C. Whitten, George Halstead, Dean C. B. Green, and Dean K. N. Vickery.

The minutes of the November 6, 1972, meeting were approved.

Dr. Godley announced his retirement as Chairman of the Honors Council and introduced Dr. Sawyer, who has been appointed the new chairman.

The Council reviewed and approved, pending acceptance by the Department of Agricultural Economics and Rural Sociology of a suggested change of wording in requirements, two new honors courses: Ag Ec H452 and Ag Ec H456.

The Council discussed informally methods by which the honors program participants might be accorded further recognition. Dean C. B. Green then offered his thanks to Dr. Godley for the work he had done with the Council during his tenure as chairman.

The meeting adjourned at 4:10 p.m.

INDUSTRIAL MANAGEMENT

Evans A. LaRoche (Prof) was presented the Distinguished Service Award of the Textile and Needle Trades Division, American Society for Quality Control, at the Division's Annual Technical Conference. This took place in Williamsburg, Va., Feb. 23.

James A. Turner, Jr. (Asst Prof) represented the South Carolina Association of Certified Public Accountants at the Professional Development Conference of the American Institute of Certified Public Accountants in Seattle, Wash. In cooperation with the SCACPA and the AICPA, Clemson will offer five Professional Development courses to the Certified Public Accountants of South Carolina this summer and fall.

Robert Zant (Asst Prof) spoke before a joint meeting of the Greenville Chapters of the American Production and Inventory Control Society, the American Institute of Industrial Engineers and the American Society for Quality Control, Feb. 5. His topic was, "Decision Trees - An Approach to Decision Making."

AGRICULTURAL ENGINEERING

C. E. Hood (Assoc Prof), B. K. Webb (Prof), D. O. Ezell (Assoc Prof, Hort), and T. L. Jones (Assoc Prof, Hort) presented a paper entitled, "A Direct Seeding -- Cultivation System for Vegetable Crops" at the Southeast Region Meeting of the American Society of Agricultural Engineers held in Atlanta, Ga., Feb. 5-6.

A. G. Jordan (Asst Agr Engr) presented a paper entitled "Effects of Soil Moisture on Movement of Trifluralin" at the Southeast Region Meeting of the American Society of Agricultural Engineers held in Atlanta, Ga., Feb. 5-6.

Jerry B. Davis (Asst Agr Engr) and Charles E. Rice (Assoc Prof, Univ of Ga) presented a paper entitled "Distribution of Granular Fertilizer and Seed Grains by Centrifugal Distributors" at the Southeast Region Meeting of the American Society of Agricultural Engineers held in Atlanta, Ga., Feb. 5-6.

John G. Alphin, Frank C. Patten, and John B. Pitner (Agr Engr, Pee Dee Exp Sta, Florence) presented a paper entitled "Analysis of Manpower Requirements for Various Methods of Handling and Preparing Non-Aligned Mechanically Harvested Leaves for Curing" at the Southeast Region Meeting of the American Society of Agricultural Engineers held in Atlanta, Ga., Feb. 5-6.

Clyde L. Barth (Assoc Prof) presented a paper entitled, "Laboratory Simulation of Swine Manure Lagoons" at the Southeast Region Meeting of the American Society of Agricultural Engineers held in Atlanta, Ga., Feb. 5-6.

C. E. Gambrell, Jr. (Asst Prof, Sandhill Exp Sta), B. K. Webb (Prof), C. E. Hood (Assoc Prof), and T. R. Garrett (Agr Sci Assoc) presented a paper entitled, "Tree Spacing Effects on Yield and Maturity of Mechanically Harvested Peaches" at the Southeast Region Meeting of the American Society of Agricultural Engineers held in Atlanta, Feb. 5-6.

A. W. Snell (Dept Hd and Dir, Southeast Region ASAE) gave a presentation at the General Session Meeting of the Southeast Region Meeting of the American Society of Agricultural Engineers held in Atlanta, Feb. 5-6, entitled "Issues of Concern to Southeast Region ASAE Members."

C. L. Barth (Assoc Prof) and H. P. Lynn (Assoc Prof) presented a paper, "Progress Report -- Aerobic and Anaerobic Lagooning of Dairy and Milking Wastes" at the National Dairy Housing Conference on the Michigan State University Campus, Feb. 6-8.

CHEMICAL ENGINEERING

D. F. Bruley (Prof) published with R. W. Glass "REFLEX Method for Empirical Optimization" Industrial and Engineering Chemistry, Process Design and Development, Vol. 12, No. 1, pp. 6-10, Jan. 1973.

D. F. Bruley (Prof) presented a seminar, "Studies in Tissue Oxygenation," at the University of Tennessee, Knoxville, Jan. 23.

CIVIL ENGINEERING

Subhash C. Anand (Assoc Prof) has been awarded a research grant of $56,300 for a period of two years, beginning May, 1973, by the National Science Foundation for support of the project entitled "Shakedown Loads on Rolling Disks, Cylinders and Spheres."

S. C. Anand has been asked to serve as a member on the Plasticity Committee of the Engineering Mechanics Division of the American Society of Civil Engineers.

H. W. Busching (Assoc Prof and Hd) has been selected to be a member of the Executive Committee for the Educational Division of the American Road Builders' Association.

Freddy L. Roberts (Asst Prof) presented a paper entitled "An Evaluation of the Relative Strength of Flexible Pavement Components" to the State ASCE Meeting in Columbia on Feb. 2.

ENGINEERING RESEARCH

S. F. Hulbert (Assoc Dean), C. N. Wilson (Ohio State), and J. E. Lemons (Univ of Ala at Birmingham) had a paper entitled "The Role of Sintering in the Development of Controlled Microstructures for Bioceramics" published in Sintering and Related Phenomena, Materials Science Research, Vol. 6, pp. 439-448 (1973).

S. F. Hulbert was appointed by the Governor to the South Carolina Advisory Council for Comprehensive Health Planning.

ECONOMICS

Hugh Macaulay (Alumni Prof) has published a chapter, "Environmental Quality, The Market, and Public Finance," in Modern Fiscal Issues (University of Toronto Press), a book of essays in honor of Prof. Carl S. Shoup of Columbia University.

ECONOMICS (Continued)

Hugh Macaulay (Alumni Prof) presented an invited lecture before faculty and graduate students in the Dept. of Economics, North Carolina State University, Feb. 5.

ELEMENTARY AND SECONDARY EDUCATION

Gordon W. Gray (Assoc Prof) recently served as a member of a team for H.E.W. to evaluate the Jacksonville, Florida public school Follow-Thru program.

Gordon W. Gray has received a grant from the South Carolina Commission on Higher Education to train 40 teachers of reading in the summer of 1973.

ENGLISH

John Idol (Assoc Prof) recently made an analysis of composition practices in the public schools. His study, "How Much Writing Is Johnny Doing?" was published in the winter issue of the South Carolina Education Journal.

Barry Hannah (Asst Prof) gave a reading Feb. 16 from his short fiction and his recent novel, Geronimo Rex, at Middlebury College, Middlebury, Vt.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

T. R. Adkins (Prof) attended and participated as an invited speaker in a seminar on "Tabanid Control During Hog Cholera Eradication in Hyattsville, Md., Feb. 7-8.

H. A. Loyacano (Asst Prof) and Dale Theiling and David C. Smith (Grad Res Assts) attended and participated in the Workshop on Marine Activities of the Coastal Plains Region in Jekyll Island, Ga., Feb. 15-16.

S. B. Hays (Prof and Hd) attended and presented an invitational paper on "Insect Pest Management" to USDA-APHIS Plant Protection Workshop at the Francis Marion Hotel, Charleston, Feb. 27-28.

LANGUAGES

Leon Seamon (Asst Prof) and Ed Arnold (Instr) attended the Executive Board meeting of the South Carolina Conference of Foreign Language Teachers, held at the University of South Carolina, Feb. 24.

ENVIRONMENTAL SYSTEMS ENGINEERING

John H. Austin (Prof) presented a seminar at the University of Maine on Mar. 5 on "Educational Systems Development for the Environmental field."

Linvil G. Rich (Prof) served on an EPA site-visit team at the University of Wisconsin - Milwaukee Division on Mar. 1.

T. M. Keinath (Assoc Prof) and R. P. Carnahan (Grad Stu) will present a paper entitled "Computation Adsorption Hetergeneous Aqueous Solution onto Activated Carbon" at the 165th National Meeting of the American Chemical Society. It is part of a symposium on the chemistry of wastewater supply, treatment and distribution which is sponsored by the Division of Water, Air, and Wastewater Chemistry. This meeting will be held on Apr. 8-13 in Dallas, Tex.

E. S. Iracki (Asst Prof) has been invited to serve as an instructor in a new short course, "Laboratory Instrumentation and Automation," to be held at the University of Illinois at Urbana-Champaign, June 16-30. The course will present the newest concepts, practical applications and laboratory experiments in electronic measurements and transducers, control of electrical quantities in instrumentation, digital and analog conversions, optimization of electronic measurements and minicomputer interfacing for laboratory automation. Additional course information may be obtained from Dr. Iracki or from Dr. H. V. Malmstadt, 47 Roger Adams Laboratory, University of Illinois, Urbana, Ill. 61801.

HISTORY

E. M. Lander, Jr. (Alumni Prof) has co-edited with R. K. Ackerman (Erskine) Perspectives in South Carolina History: The First Three Hundred Years (Columbia: University of South Carolina Press, 1973).

James E. Sargent (Asst Prof) attended and participated in the discussion of six papers on 20th Century American Foreign Policy at the first Southeast Regional Conference of the Society for Historians of American Foreign Relations, held in Atlanta, Feb. 24.

COLLEGE OF NURSING

Geraldine Labecki (Dean) participated as a member of an accreditation team from National League for Nursing, Department of Baccalaureate and Higher Degree Programs, Jan. 30 - Feb. 2. Dean Labecki also participated in an accreditation visit in Louisiana on Feb. 25-28 as a member of the Southern Association of Colleges and Schools visitation committee.

Miss Regina Thompson, R.N.,(Asst Prof), has been selected to serve as a member of the Regional Advisory Group, South Carolina Regional Medical Program.

MATHEMATICAL SCIENCES

Joel V. Brawley (Prof) representing Clemson University and the Mathematical Association of America as part of the Visiting Lecturer's program, presented a colloquium lecture entitled, "Some Matrix Theoretic Questions in Algebraic Cryptography" to the faculty and graduate students of Appalachian State University, Boone, N. C. on Feb. 14. On Feb. 15 he gave a lecture to undergraduate students entitled "Gambler's Ruin."

Kenneth T. Wallenius (Prof) attended a meeting of the Board of Directors of the American Statistical Association on Feb. 26 in Washington, D.C., as District 6 representative. District 6 encompasses nine southeastern states.

TEXTILE DEPARTMENT

Thomas D. Efland (Assoc Dean and Prof) gave a lecture on knitted fabrics at the South Carolina meeting of Professional Home Economists in Charleston, Feb. 24.

J. C. Hubbard, Jr. (Prof) presented a paper before the Graduate School Class of A. French Textile School at Georgia Institute of Technology, Feb. 8. The paper covered the arts and crafts in general, most of the time being devoted to the area of hand weaving and its current impact on the general public.

E. A. Vaughn (Asst Prof) and C. J. Kim (Grad Stu) presented a paper, "Fundamentals of Fabric Hand: The Problem of the Objective Measurement of a Subjective Phenomenon," before the International Nonwoven and Disposables Association's Inaugural Technical Symposium in Washington, D.C., Feb. 1. The paper will be published in the Association's proceedings.

Donald W. Lyons (Assoc Prof) and E. L. Thanas (Duke Power Co) published a paper entitled, "The Impact of OSHA on Central Power Station Operations" in the recent issue of Combustion.

Donald W. Lyons has been elected to serve on the steering committee for the newly formed Piedmont Section of the American Society for Safety Engineers. Dr. Lyons has also been elected to the program committee of the International Microwave Power Institute.

John D. Hatcher (Asst Prof) presented a paper at the recent conference of the South Carolina State Industrial Nurses Association held in Greenville. He discussed the responsibility of the industrial nurse with regard to the occupational safety and health regulations.

POLITICAL SCIENCE AND SOCIOLOGY

Charles W. Dunn (Assoc Prof and Hd) hosted Harry Dent for a meeting and reception with political science majors on Feb. 22.

Harold E. Albert (Asst Prof) served on the coastal zone research panel for the Workshop on Marine Activities in the Coastal Plains Region (Southeastern U.S.) at Jekyll Island, Ga., Feb. 15-16.

ZOOLOGY

Richard F. Walker (Asst Prof) authored a research paper entitled "Influence of subtracheal fat body depletion on thyroid function in the desert iguana" which recently appeared in Comparative Biochemistry and Physiology 44 (3A) 911-918.

A paper by William Bachop (Asst Prof) and Frank J. Schwartz (Univ of NC) has been accepted for presentation at the International Symposium on the Early Life History of Fish being held May 16-23 in Scotland under the auspices of the International Association of Biological Oceanographers. All symposium papers are being published as a single issue of the Journal of the International Council for the Exploration of the Sea.

Enrollment by Men and Women - Full Time and Part Time
Clemson University
Second Semester 1972-1973

Classification	MEN			WOMEN			TOTAL		
	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total
1st Semester Freshman	815	9	824	344	22	366	1159	31	1190
2nd Semester Freshman	487	6	493	389	9	398	876	15	891
Sub-Total	1302	15	1317	733	31	764	2035	46	2081
1st Semester Sophomore	593	12	605	220	11	231	813	23	836
2nd Semester Sophomore	555	12	567	333	9	342	888	21	909
Sub-Total	1148	24	1172	553	20	573	1701	44	1745
1st Semester Junior	481	16	497	152	9	161	633	25	658
2nd Semester Junior	632	8	640	261	6	267	893	14	907
Sub-Total	1113	24	1137	413	15	428	1526	39	1565
1st Semester Senior	362	13	375	95	1	96	457	14	471
2nd Semester Senior	717	54	771	177	18	195	894	72	966
Sub-Total	1079	67	1146	272	19	291	1351	86	1437
TOTAL	4642	130	4772	1971	85	2056	6613	215	6828
Graduate-Masters Level	383	291	674	105	388	493	488	679	1167
Postgraduate	7	7	14	1	8	9	8	15	23
Non-Degree	0	7	7	2	12	14	2	19	21
Graduate-Ph.D. Level	162	43	205	14	6	20	176	49	225
TOTAL	552	348	900	122	414	536	674	762	1436
CAMPUS TOTAL	5194	478	5672	2093	499	2592	7287	977	8264
Greenville Campus	150	22	172	66	23	89	216	45	261
Sumter Campus	137	13	150	67	6	73	204	19	223
Clemson-Furman MBA	0	149	149	0	5	5	0	154	154
Institutes	0	166	166	0	519	519	0	685	685
OFF CAMPUS TOTAL	287	350	637	133	553	686	420	903	1323
GRAND TOTAL	5481	828	6309	2226	1052	3278	7707	1880	9587

Total Enrollment by Courses and Academic Classification
Clemson University
Second Semester 1972-1973

Major Course	Freshman (Semester) 1st	Freshman (Semester) 2nd	Sophomore (Semester) 1st	Sophomore (Semester) 2nd	Junior (Semester) 1st	Junior (Semester) 2nd	Senior (Semester) 1st	Senior (Semester) 2nd	Post Grad	Mast	PhD	Uncl	Total
Agriculture	1	0	0	0	0	0	0	0	0	0	0	0	1
Agricultural Economics	3	4	7	1	3	9	4	11	0	10	9	0	61
Agricultural Engineering	7	1	1	5	3	2	1	3	0	3	4	0	30
Agricultural Mechanization	0	0	0	0	0	0	0	0	0	2	0	0	2
Agronomy	5	5	3	5	4	10	5	3	0	8	4	0	52
Animal Industries	0	1	0	0	0	0	0	0	0	0	0	0	1
Animal Physiology	0	0	0	0	0	0	0	0	0	0	7	0	7
Animal Science	4	8	7	8	10	8	4	17	0	7	0	0	73
Dairy Science	2	1	1	5	2	4	2	3	0	4	0	0	24
Entomology	0	0	1	0	2	0	1	3	0	16	13	0	36
Food Science	10	2	4	1	3	2	1	2	0	0	0	0	25
Horticulture	3	4	9	4	5	8	4	18	0	12	0	0	67
Nutrition	0	0	0	0	0	0	0	0	0	4	5	0	9
Plant Pathology	0	0	0	0	0	0	0	0	0	3	3	0	6
Plant Physiology	0	0	0	0	0	0	0	0	0	0	12	0	12
Plant Sciences	0	0	0	0	0	0	0	0	0	0	0	0	0
Poultry Science	0	1	1	1	0	2	0	1	0	1	0	0	7
Pre-Veterinary	16	26	15	11	12	8	1	0	0	0	0	0	89
Wildlife Biology	0	0	0	0	0	0	0	0	0	13	0	0	13
College Total	51	53	49	41	44	53	23	61	0	83	57	0	515
Architecture	0	0	0	0	0	0	0	0	0	34	0	0	34
Building Construction	8	5	20	21	14	12	4	17	0	0	0	0	101
City and Regional Planning	0	0	0	0	0	0	0	0	0	22	0	0	22
Architecture (BA)	34	34	26	26	16	32	8	29	1	0	0	0	206
Architecture (BS)	9	26	6	5	2	0	0	1	0	0	0	0	49
Visual Studies	0	0	0	0	0	0	0	0	0	7	0	0	7
College Total	51	65	52	52	32	44	12	47	1	63	0	0	419

Total Enrollment by Courses and Academic Classification
Clemson University
Second Semester 1972-1973
page two

Major Course	Freshman (Semester) 1st	Freshman (Semester) 2nd	Sophomore (Semester) 1st	Sophomore (Semester) 2nd	Junior (Semester) 1st	Junior (Semester) 2nd	Senior (Semester) 1st	Senior (Semester) 2nd	Post Grad	Mast	PhD	Uncl	Total
Education (Non Degree)	0	0	0	0	0	0	0	0	0	192	0	0	192
Administration and Supervision	0	0	0	0	0	0	0	0	0	59	0	0	59
Agricultural Education	9	3	11	7	5	2	6	14	0	13	0	0	70
Early Childhood Education	22	41	10	25	13	22	6	15	0	0	0	0	154
Elementary Education	38	78	36	61	39	62	24	60	3	71	0	0	472
Industrial Education	17	8	23	16	20	16	15	47	0	29	0	0	191
Personnel Services	0	0	0	0	0	0	0	0	0	83	0	0	83
Reading	0	0	0	0	0	0	0	0	0	96	0	0	96
Science Teaching	6	3	3	3	4	13	4	17	0	0	0	0	53
Secondary Education	27	40	27	54	32	71	29	60	1	79	0	0	420
College Total	119	173	110	166	113	186	84	213	4	622	0	0	1790
Engineering	5	1	1	0	0	0	0	0	0	0	0	0	7
Bio-Engineering	0	0	0	0	0	0	0	0	0	17	3	0	20
Ceramic Engineering	8	8	7	7	3	7	3	16	0	8	0	0	67
Chemical Engineering	14	21	6	32	4	16	11	26	0	17	9	0	156
Civil Engineering	46	18	18	22	14	31	15	34	0	18	3	0	219
Electrical Engineering	44	25	33	29	16	37	13	47	0	24	10	0	278
Engineering Analysis	7	4	6	3	0	6	3	9	0	0	0	0	38
Engineering Mechanics	0	0	0	0	0	0	0	0	0	2	3	0	5
Environmental Systems Engineering	0	0	0	0	0	0	0	0	0	25	12	0	37
Materials Engineering	0	0	0	0	0	0	0	0	0	5	1	0	6
Mechanical Engineering	31	20	10	21	12	27	18	33	1	17	5	0	195
Systems Engineering	0	0	0	0	0	0	0	0	0	5	6	0	11
Technical Operations	8	1	10	4	12	10	13	25	0	0	0	0	83
Water Resources Engineering	0	0	0	0	0	0	0	0	0	8	0	0	8
College Total	163	98	91	118	61	134	76	190	1	146	52	0	1130
Forestry	35	30	21	30	13	16	9	21	1	12	0	0	188
Recreation & Park Administration	79	26	62	44	51	47	28	51	0	21	0	0	409
College Total	114	56	83	74	64	63	37	.72	1	33	0	0	597

Total Enrollment by Courses and Academic Classification
Clemson University
Second Semester 1972-1973
page three

Major Course	Freshman (Semester) 1st	Freshman (Semester) 2nd	Sophomore (Semester) 1st	Sophomore (Semester) 2nd	Junior (Semester) 1st	Junior (Semester) 2nd	Senior (Semester) 1st	Senior (Semester) 2nd	Post Grad	Mast	PhD	Uncl	Total
Accounting	25	5	11	22	8	18	13	11	1	0	0	0	114
Administrative Management	92	57	109	54	83	53	36	48	0	0	0	0	532
Economics	6	6	7	7	4	12	15	15	0	13	0	0	85
Engineering Management	0	0	0	0	0	0	0	0	0	0	26	0	26
Financial Management	62	13	31	28	19	18	9	13	0	0	0	0	193
Industrial Management	20	8	8	11	14	36	26	54	0	1	0	0	178
Management	0	0	0	0	0	0	0	0	0	19	0	0	19
Textile and Polymer Science	0	0	0	0	0	0	0	0	0	0	5	0	5
Textile Chemistry	8	3	1	1	3	3	3	4	0	10	0	0	36
Textile Science	3	1	0	4	0	4	0	5	0	7	0	0	24
College Total	216	93	167	127	131	144	102	150	1	50	31	0	1212
Liberal Arts (Undeclared)	13	8	4	6	2	1	0	0	0	0	0	0	34
English	16	23	27	30	25	20	13	15	0	38	0	0	207
French	2	3	2	2	1	0	1	5	0	0	0	0	16
German	1	1	1	1	0	2	1	0	0	0	0	0	7
History	13	23	14	15	4	9	10	15	0	10	0	0	113
Political Science	33	36	27	24	26	24	17	16	0	0	0	0	203
Psychology	24	42	29	40	28	40	23	24	0	0	0	0	250
Sociology	27	19	14	7	15	14	9	14	0	0	0	0	119
Spanish	1	6	5	2	3	3	3	1	0	0	0	0	24
College Total	130	161	123	127	104	113	77	90	0	48	0	0	973
Nursing (AA)	13	24	21	24	6	0	0	0	0	0	0	0	88
Nursing (BS)	71	24	24	41	6	25	5	15	0	0	0	0	211
College Total	84	48	45	65	12	25	5	15	0	0	0	0	299

Total Enrollment by Courses and Academic Classification
Clemson University
Second Semester 1972-1973
page four

Major Course	Freshman (Semester) 1st	Freshman (Semester) 2nd	Sophomore (Semester) 1st	Sophomore (Semester) 2nd	Junior (Semester) 1st	Junior (Semester) 2nd	Senior (Semester) 1st	Senior (Semester) 2nd	Post Grad	Mast	PhD	Uncl	Total
Biochemistry	0	0	0	0	0	0	0	0	0	5	0	0	5
Biology	3	3	3	1	3	2	3	0	1	0	0	0	19
Botany	3	1	3	1	3	1	2	3	0	7	0	0	24
Chemical Physics	0	0	0	0	0	0	0	0	0	0	0	0	0
Chemistry (BA)	1	0	0	3	0	1	3	1	0	0	0	0	9
Chemistry (BS)	5	7	7	8	2	4	1	9	1	11	23	0	78
Geology (BA)	0	0	1	0	3	0	1	0	0	0	0	0	5
Geology (BS)	2	0	1	4	1	2	0	4	0	0	0	0	14
Management Science	0	0	0	0	0	0	0	0	0	1	3	0	4
Mathematics (BA)	6	8	6	5	4	11	2	2	0	0	0	0	44
Mathematics (BS)	21	13	11	13	12	22	8	15	0	44	26	0	185
Medical Technology	11	30	4	18	7	8	1	1	0	0	0	0	80
Microbiology	28	5	16	28	16	16	7	14	1	17	0	0	148
Physics (BA)	1	0	0	1	0	0	1	0	0	0	0	0	3
Physics (BS)	4	6	2	5	4	7	3	5	0	11	21	0	68
Pre-Dentistry	32	3	8	4	3	12	5	12	0	0	0	0	79
Pre-Medicine	90	34	12	13	13	23	6	27	1	0	0	0	219
Pre-Pharmacy	16	19	10	8	2	0	0	0	0	0	0	0	55
Zoology	39	15	32	27	24	36	12	35	0	22	12	0	254
College Total	262	144	116	139	97	145	55	128	4	118	85	0	1293
Unclassified	0	0	0	0	0	0	0	0	11	4	0	21	36
Sub-Total	0	0	0	0	0	0	0	0	11	4	0	21	36
CAMPUS TOTAL	1190	891	836	909	658	907	471	966	23	1167	225	21	8264

CALENDAR OF CAMPUS EVENTS Continued from page 6

March 26	Mon.	8:00 p.m.	CSU Chess Instruction, Holtzendorff Hall.
March 27	Tues.		Clemson Area Continuing Education Classes.
March 27	Tues.		Baseball at Wake Forest.
March 27	Tues.	7:30 p.m.	CSU Ladies' Billiard Tournament, Holtzendorff Hall.
March 27	Tues.	8:00 p.m.	Austrian Night, Holtzendorff Hall.
March 27-31	Tues.-Sat.		(Tentative) CSU Outdoor Recreation Workshop.
March 28	Wed.		Baseball at Western Michigan.
March 28	Wed.		Deadline to sign up for trip to Underground Atlanta -- YMCA.
March 29-April 12	Thurs.-Thurs.		Architecture exhibit - Visual Studies Graduate Exhibition - Lee Hall Gallery.
March 29	Thurs.	2:00 p.m.	CU Speakers Bureau - Frank Reynolds (ABC) - Tillman Hall Auditorium.
March 29	Thurs.	8:00 p.m.	Chamber Music Series 1972-73 Season; Doris Hill, Soprano, and Robert Hill, tenor; Daniel Hall Auditorium; Free.
March 29	Thurs.	4:00 p.m.	Charles R. Froneberger, M.S. Candidate, Environmental Systems Engineering (Ultrafiltation in Textile Wastewater Treatment) and Marshall Corlew, M.S. Candidate, Environmental Systems Engineering (Measurement of Color in Polluted Waters)-302 Rhodes Center).
March 29-31	Thurs.-Sat.		CSU Movie "Che," Holtzendorff Hall.
March 30-31	Fri.-Sat.		Baseball at Duke.
March 30-31	Fri.-Sat.	9:00 p.m.-1:00 a.m.	CSU Coffeehouse, "The Gutter,"
March 31	Sat.		Sumter Spring Game.
March 31	Sat.		South Carolina Speech Communication Association Spring meeting on Clemson campus.
March 31	Sat.		CSU Trip to Underground Atlanta; bus(ses) leave YMCA at 1 p.m.
March 31	Sat.	9:00 p.m.-1:00 a.m.	CSU Jam Session, place to be announced.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY LIBRARY MAR 2

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 16 April 1, 1973

CLEMSON CHOSEN FOR TAFT INSTITUTE

Clemson University has been chosen to sponsor one of the 1973 Robert A. Taft Institute of Government Seminars, which will be held at 34 select colleges and universities throughout the country this year.

Clemson's Taft Seminar, which will bring 30 of the state's secondary school teachers to the campus June 11-22 for an intensive study of the American political system, will be the first ever offered in South Carolina.

"The seminar offers teachers a unique learning experience in practical politics, the two-partysystem and constitutional government," says Clemson's program director Dr. Charles W. Dunn, head of the Department of Political Science and Sociology.

The teachers will sit down with some 20 national, state and local political leaders for face-to-face, give-and-take discussions on the aspects and realities of government and politics, he says.

The Robert A. Taft Institute of Government was organized in 1961 to bring about greater understanding of the processes and principles of government in the United States. It is non-partisan, non-profit, and national in scope with headquarters in New York City.

Vice President for Development Stanley G. Nicholas, Life Trustee Paul W. McAlister and President Robert C. Edwards welcome Mr. Thomas M. Hunter at a dinner in his honor March 2. Mr. Hunter and his wife, the late Louise M. Hunter have given Clemson University a deferred gift valued in excess of a half-million dollars to establish the Hunter Endowed Chair of Bioengineering. The chair will honor Mr. Hunter's brother, Joseph Everett Hunter, a much-loved professor of mathematics at Clemson for 47 years.

SCSEA SCHOLARSHIP APPLICATIONS NOW BEING ACCEPTED

Applications are now being accepted for the Shillito-Hammett Scholarship to be awarded to a dependent son or daughter of a member of the South Carolina State Employees' Association. The scholarship fund was established by Mr. Henry Mills, Comptroller General of South Carolina, to honor Mrs. Cornelia Shillito and Mr. Julius E. Hammett, recipients of the 1969 Outstanding State Employee Awards.

The following guidelines will be considered in selecting the recipient of the Scholarship Award:

(1) The recipient will have completed at least one academic year (30 semester hours or 45 quarter hours) in a four-year, accredited college or university with a minimum 2.00 grade point ratio.

(2) The recipient shall be pursuing a baccalaureate degree at a four-year college or university in South Carolina.

(3) The recipient shall be eligible for the $500 Scholarship this academic year only.

(4) If at the end of a semester or quarter, the status of the recipient changes, the application may be re-evaluated.

(5) Prime consideration for the award of the scholarship will be the academic record and the financial need of the applicant.

(6) The deadline date for filing application is May 1, 1973.

An application form is available in the Student Financial Aid office, Sikes Hall.

TICKETS NOW AVAILABLE FOR CLEMSON CLUB BANQUET

Tickets are now available for the Fort Hill Clemson Club's annual Ladies Night and Man-of-the-Year banquet to be held Friday, April 13, eve of the annual Orange-White spring football game, at the Clemson House.

The tickets are $5.00 each and may be purchased at the Alumni Center, the Athletic Association, the Department of Public Relations (Trustee House), and from Fort Hill Club officers Spec Farrar and Betts Wilson.

The evening will begin with a social hour at 6:30 p.m. in the main lobby of the Clemson House. Dinner will follow at 7:30 p.m. in the main dining room (Saber Room). Since dinner is in the Saber Room, only a limited number of tickets will be available and club officials urge that they be purchased in advance.

Coach "Red" Parker will be a special guest. Alumni, students and friends of Clemson are invited to attend.

FIVE DISTINGUISHED ALUMNI NAMED

Five South Carolina natives who have distinguished themselves through excellence in their varied careers have been named recipients of 1973 Alumni Distinguished Service Awards at Clemson University.

Selected from nominations by all Clemson alumni are Dr. Fletcher C. Derrick Jr. (Class of 1954), Washington, D.C., medical doctor and one of the youngest professors of urology in the nation; Oliver H. Folk ('37) of Washington, D.C., international development authority and government advisor; Lt. Gen. Harris W. Hollis ('42), Fort Myer, Va., veteran Army officer with an outstanding service record; Marshall E. Walker ('41) prominent Rock Hill business executive and electrical contractor; and Wilson C. Wearn ('41), Greenville broadcasting executive.

FIVE DISTINGUISHED ALUMNI NAMED Continued

The award recognizes former Clemson students whose "personal life, professional achievements, community service, and loyalty to Clemson best exemplify the objectives of Clemson University.

Announcing this year's recipients of the Clemson Alumni Association's highest honor was Lawrence V. Starkey Jr. of Atlanta, president of the Alumni Association's National Council.

Formal presentation will be made to the five men in June during annual Reunion Weekend when hundreds of former students return to campus. The latest recipients join an elite group of 66 Clemson alumni who have been honored since 1960.

EDUCATIONAL COUNCIL MINUTES, MARCH 5, 1973

Present: Robert C. Edwards, presiding; Victor Hurst, Walter T. Cox, Stanley G. Nicholas, Melford A. Wilson, H. Morris Cox, J. W. Gordon Gourlay, Claud B. Green, J. W. Jones, Geraldine Labecki, Harold F. Landrith, James Dalton, W. H. Davis McGregor, James L. Edwards, Ernest B. Rogers, A. E. Schwartz, W. D. Trevillian, K. N. Vickery, Henry E. Vogel and A. W. Rigsby, Secretary.

1. Minutes

The minutes of the meeting of February 5, 1973 were approved as submitted.

2. Curriculum Changes

Statement and Recommendation: The Dean of the University recommends additions, deletions and changes to the curricula, effective when designated on the appropriate Request for Approval forms as follows:

I. COLLEGE OF AGRICULTURAL SCIENCES

(A) New Undergraduate Courses

AgEc H452	Agricultural Policy	3 cr. (3 and 0)
AgEc H456	Prices	3 cr. (3 and 0)
AgE 433	Design Criteria for Plant & Animal Environment	3 cr. (3 and 0)
AnSc 205	Light Horse Management	2 cr. (1 and 3)
FdSc 321	Food Processing (Replaces FdSc 311)	2 cr. (2 and 0)
FdSc 322	Food Processing (Replaces FdSc 312)	2 cr. (2 and 0)

EDUCATIONAL COUNCIL MINUTES, MARCH 5, 1973 (Continued)

(A) New Undergraduate Courses (continued)

FdSc 323	Food Processing Laboratory (Replaces FdSc 313)	2 cr. (1 and 3)
FdSc 324	Food Processing Laboratory (Replaces FdSc 314)	2 cr. (1 and 3)
FdSc 401	Food Chemistry I (Replaces FdSc 413)	4 cr. (3 and 3)
FdSc 402	Food Chemistry II (Replaces FdSc 416)	4 cr. (3 and 3)
FdSc 422	Quality Assurance and Sensory Eval. (Replaces FdSc 412)	2 cr. (2 and 0)
FdSc 424	Quality Assurance and Sensory Eval. Lab (Replaces FdSc 414)	1 cr. (0 and 3)
Hort 301	Horticulture and Man	2 cr. (2 and 0)
Hort 470	Horticulture Therapy	3 cr. (3 and 0)
PS 363	Propagation of Game & Exotic Birds	3 cr. (2 and 3)

(B) New Graduate Courses

AgEc 809	Problems in the Economics of Waste Disposal and Management	3 cr. (3 and 0)
AgEc 881	Internship in Community & Resource Development	1-6 cr. variable
Ent 840	Insect Ecology	3 cr. (2 and 3)
Gen 806	Special Problem in Genetics	1-3 cr. (0 and 3, 6 or 9)
RS 881	Special Problems in Rural Social Research	3 cr. (3 and 0)

(C) Curriculum Change

EDUCATIONAL COUNCIL MINUTES, MARCH 5, 1973 (Continued)

AGRICULTURAL ENGINEERING CURRICULUM

Agricultural Engineering Major

Freshman Year

First Semester			Second Semester		
Agric 101	Introd. to Agr.	1 (1,0)	Basic Science		3 or 4
Ch 101	General Chemistry	4 (3,3)	Engl 102	English Composition	3 (3,0)
Engr 180	Engineering Concepts	3 (3,0)	Humanistic Social Elective		3 (3,0)
or Humanistic Social Elective		3 (3,0)	or Engr 180	Engineering Concepts	3 (3,0)
Engl 101	English Composition	3 (3,0)	Math 108	Cal. and Lin. Alg.	4 (5,0)
Math 106	Cal. of One Var.	4 (5,0)	Phys 122	Mech. and Wave Phen.	3 (3,0)
Elective		1	Elective		1
		16			17 or 18

Sophomore Year

First Semester			Second Semester		
Ag E 221	Soil & Water Res. Engr. I.	3 (2,3)	AgE 212	Fund. of Mechanization	3 (2,3)
EG 109	Engr. Graph. Com.	2 (0,6)	Bot 101	Plant Biology	3 (3,0)
EM 201	Engr. Mech. (Statics)	3 (3,0)	Bot 103	Lab in Plt. Biol.	1 (0,2)
Literature Requirement*		3 (3,0)	EM 202	Engr. Mech. (Dynamics)	3 (3,0)
Math 206	Cal. of Sev. Var.	4 (5,0)	Literature Requirement*		3 (3,0)
Phys 221	Ther. and Elec. Phen.	3 (3,0)	Math 208	Engr. Math. I	4 (5,0)
Elective		1	Elective		1
		19			18

Junior Year

First Semester			Second Semester		
Ag E 353	Computational Systems	2 (1,3)	Ag E 362	Energy Conv.In Ag.Sys.	3 (3,0)
Ag E 355	Engr. Anal. & Creat.	2 (1,3)	Ag E 465	Engr. Prop. of Biol.Mat.	3 (2,3)
E & CE 307	Basic Elec. Engr.	3 (3,0)	Ag E 433	Des.Criteria for Pl.& An.Env	3 (3,0)
EM 304	Mechanics of Materials	3 (3,0)	Agron 202	Soils	3 (3,0)
ME 311	Engr. Thermo. I	3 (3,0)	Humanistic Social Elective		3 (3,0)
Zool 101	Animal Biology	3 (3,0)	Phys 222	Opt. and Mod. Phys.	3 (3,0)
		16			18

Senior Year

First Semester			Second Semester		
Ag E 431	Agric. Struct. Design	3 (2,3)	Ag E 416	Agric. Machinery Design	3 (2,3)
Ag E 471	Undergraduate Research	1 (0,3)	Ag E 422	Soil & Water Res. Engr. II	3 (2,3)
Econ 201	Principles of Econ.	3 (3,0)	Ag E 442	Agric. Proc. Engr.	3 (3,0)
EM 320	Fluid Mechanics	3 (3,0)	ME 304	Heat Transfer	3 (3,0)
Math 301	Stat. Theory & Math I	3 (3,0)	Engineering Elective		2 or 3
Electives		4 or 3	Electives		3 or 2
		17 or 16			17

* To be selected from the following: Engl 203, 204, 205, 206, 207, 208.

EDUCATIONAL COUNCIL MINUTES, MARCH 5, 1973 (Continued)

II. COLLEGE OF EDUCATION

(A) Change in Title and Description

AgEd 431	Methods in Environmental Education	3 cr. (3 and 0)

III. COLLEGE OF ENGINEERING

(A) New Undergraduate Courses

EG 115	Engineering Graphics for Industrial Education (Replaces EG 201)	2 cr. (0 and 6)
EG 116	Graphical Technology for Industrial Education (Replaces EG 202)	2 cr. (0 and 6)

IV. COLLEGE OF FOREST AND RECREATION RESOURCES

(A) Revised Curricula

EDUCATIONAL COUNCIL MINUTES, MARCH 5, 1973 (Continued)

(1) FOREST MANAGEMENT CURRICULUM

FRESHMAN YEAR

First Semester		Second Semester	
* Bot 101, Plant Biology	3 (3,0)	Zool 101, Animal Biology	3 (3,0)
* Bot 103, Lab. in Plant Biology	1 (0,2)	For 102, Introd. to Forestry	1 (1,0)
* Ch 101, General Chemistry	4 (3,3)	* Ch 102, General Chemistry	4 (3,3)
Engl 101, English Composition	3 (3,0)	Engl 102, English Composition	3 (3,0)
For 101, Introd. to Forestry	1 (1,0)	Math 108, Calc. and Lin. Alg.	4 (5,0)
Math 106, Calculus of One Variable	4 (5,0)	* EG 105, Engineering Graphics	2 (0,6)
Elective	1	Elective	1
	17		18

SOPHOMORE YEAR

*Agron 202 Soils	3 (2,2)	*CE 201 Surveying	3 (2,3)
Engl 203 Surv. of Engl. Lit.	3 (3,0)	Cp Sc 205 Computer Programming	3 (3,0)
*For 205 Dendrology	4 (3,3)	*For 206 Silvics	4 (3,3)
Phys 207 General Physics	4 (3,2)	Geol 219 Geol. for Foresters	3 (3,0)
Econ 201 Principles of Econ.	3 (3,0)	Engl 301 Public Speaking	3 (3,0)
Elective	1	Elective	1
	18		17

FORESTRY SUMMER CAMP

For 251	Forest Plants	2 cr.
For 252	Forest Engineering	2 cr.
For 253	Forest Mensuration	4 cr.
For 254	Forest Products	1 cr.

JUNIOR YEAR

**For 308 Aerial Photos in For.	3 (2,3)	**For 302 Forest Mensuration	3 (2,3)
Ex St 301 Introductory Statistics	3 (2,2)	For 304 Forest Economics	3 (3,0)
WB 412 Wildlife Management	3 (2,3)	For 306 Ident. Wood & Wood Fibers	2 (1,3)
Ent 307 Forest Entomology	3 (2,3)	**For 310 Silviculture	4 (3,3)
Emphasis Area	3	Bot 352 Plant Physiology	4 (3,3)
Social Science Elective	3		
	18		16

SENIOR YEAR

Pl Pa 405 Forest Pathology	3 (2,3)	For 401 Logging and Milling	3 (2,3)
For 417 Forest Mgt. & Regul.	4 (3,3)	For 412 Forest Protection	2 (2,0)
For 420 Forest Products	2 (2,0)	For 414 Management Plans	1 (0,3)
Pol Sci 301 Am. Gov. & Pol. Par.	3 (3,0)	For 416 Forest Pol. & Admin.	2 (2,0)
Emphasis Area	6	For 418 Forest Valuation	3 (3,0)
		Approved Electives	6
	18		17

148 Total Semester Hours

* Courses prerequisite to enrollment for Summer Camp.

** Summer Camp prerequisite to these courses.

The emphasis areas in forestry are forest management, forest economics and marketing, forest biology, forest game management, forest recreation, forest harvesting, forest influences, forest protection, forest biometrics, forest soils, and the humanities. The student selects one of these and in consultation with his advisor schedules approved courses for that particular emphasis area.

EDUCATIONAL COUNCIL MINUTES, MARCH 5, 1973 (Continued)

(A) **Revised Curricula (continued)**

(2) RECREATION AND PARK ADMINISTRATION CURRICULUM

Freshman Year

First Semester			Second Semester		
Biol 101 Plant Biology	3	(3,0)	Engl 102 English Composition	3	(3,0)
Engl 101 English Composition	3	(3,0)	Pol Sc 101 Introd. to Pol Sc I	3	(3,0)
History 102 American History	3	(3,0)	RPA 102 Hist. & Prin. O'door Rec.	3	(3,0)
Math 101 Mathematical Analysis	3	(3,0)	RPA 203 Per. & Comm. Health	3	(3,0)
RPA 101 Introd. to Comm. Rec.	3	(3,0)	Zool 101 Animal Biology	3	(3,0)
Elective	1		Elective	1	
	16			16	

Sophomore Year

First Semester			Second Semester		
Econ 200 Economic Concepts	3	(3,0)	Acct 200 Managerial Accounting	3	(3,0
Literature Requirement*	3	(3,0)	Physical Science+	4	
Physical Science+	4		Psych 211 Growth & Development	3	(3,0
Psych 201 Gen. Psychology	3	(3,0)	Soc 201 Introd. Sociology.	3	(3,0
RPA 204 Sports in Recreation	3	(2,3)	RPA 205 Prog. Plan for Rec.	3	(2,3
Elective	1		Elective	1	
	17			17	

Junior Year

First Semester			Second Semester		
RPA 302 Camp Org. & Admin.	3	(2,3)	Engl 301 Public Speaking	3	(3,0
RPA 306 Prin. of Outdoor Ed.	3	(3,0)	RPA 308 Rec. Leadership	3	(3,0
Emphasis Area°	6		Emphasis Area°	6	
Elective	3		Elective	3	
	15			15	

SUMMER

RPA 405 FIELD TRAINING IN RECREATION -- 8

EDUCATIONAL COUNCIL MINUTES, MARCH 5, 1973 (Continued)

Senior Year

First Semester

RPA 402 Recreation Admin. . . .	3 (3,0)	RPA 403 Facility & Site Planning .	3 (2,3)
RPA 409 Rec. Research I	3 (3,0)	RPA 410 Rec. Research II	3 (3,0)
Emphasis Area[o].	8	Emphasis Area[o]	6
Elective	2	Elective	3
	16		15

* To be selected from: Engl 203, 204, 205, 206, 207, 208

+ Two semester sequences in chemistry, geology, physics, or physical science.

[o]The emphasis areas in the Department of Recreation and Park Administration include rehabilitative recreation, recreation resource management and recreation and park administration. The student selects one of these areas and in consultation with his advisor schedules the required and approved courses for that particular emphasis area.

REHABILITATIVE RECREATION

Ed	471	The Exceptional Child	3 (3,0)
Psy	402	Abnormal Psychology	3 (3,0)
RPA	406	Recreation for the Ill and Handicapped	3 (3,0)
RPA	408	Application of Recreation Therapy	3 (3,0)
			12

RECREATION AND PARK ADMINISTRATION

IM	307	Personnel Management	3 (3,0)
RPA	307	Park Maintenance and Operation	4 (3,3)
Soc	331	Urban Sociology	3 (3,0)
			10

RECREATION RESOURCE MANAGEMENT

Agron	403	Soil Genesis and Classification	2 (1,3)
For	305	Elements of Forestry	2 (2,0)
RPA	307	Park Maintenance and Operation	4 (3,3)
RPA	407	Methods of Environmental Interpretation	3 (2,3)
			11

EDUCATIONAL COUNCIL MINUTES, MARCH 5, 1973 (Continued)

V. COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

(A) Curriculum

(1) Bachelor of Science Degree in Economics

Freshman Year

First Semester			Second Semester		
Engl. 101, Eng. Comp.	3	(3,0)	Engl. 102, Eng. Comp.	3	(3,0)
Hist. 171, History of Civilization	3	(3,0)	Hist. 172, or 173 History of Civilization	3	(3,0)
Math 101, Math Anal. I[1]	3	(3,0)	Math 102, Math Anal. II[1]	3	(3,0)
Acct. 201, Prin. of Acct.	3	(3,0)	Acct. 202, Prin. of Acct.	3	(3,0)
Natural Science*	3-4		Natural Science*	3-4	
Elective	1		Elective	1	
	16-17			16-17	

Sophomore Year

Econ 201, Prin. of Econ.	3	(3,0)	Econ 202, Prin. of Econ.	3	(3,0)
Literature Requirement[2]	3	(3,0)	Literature Requirement	3	(3,0)
Social Science Elective	3		Social Science Elective	3	
Math 106, Cal. of One Var.	4	(5,0)	IM 306, Corp. Finance	3	(3,0)
Elective	1		Elective	1	
Elective	3		Elective	3	
	17			16	

Junior Year

Econ 314, Inter. Econ. Theory	3		Econ 407, Nat. Income & Emp. Anal.	3	(3,0)
Econ 302, Money & Banking	3		Major	3	
IM 322, Legal Environ. of Business	3		Math 203, Ele. Stat. Inference or Math 301, Stat. Theory Methods I	3	(3,0)
Comp. Sci. 205, Computer Variables Programming in PL/1	3	(2.3)	Option	3	
Option	3		Elective	3	
	15			15	

Senior Year

Major	6	Major	6
Option	6	Option	3-5
Approved Electives	6	Approved Electives	6-10
	18		17-19

132 Semester Hours

*Excluding Physical Science 101 & 102

EDUCATIONAL COUNCIL MINUTES, MARCH 5, 1973 (Continued)

VI. COLLEGE OF LIBERAL ARTS

(A) New Undergraduate Course

Engl 441	Continental Fiction in Translation (Replaces Engl 223)	3 cr. (3 and 0)

(B) New Graduate Course

Engl 641	Continental Fiction in Translation	3 cr. (3 and 0)

VII. COLLEGE OF PHYSICAL, MATHEMATICAL & BIOLOGICAL SCIENCES

(A) New Undergraduate Courses

Astr 307	Cosmology	3 cr. (3 and 0)
Astr 412	Spherical Astronomy	3 cr. (3 and 0)
Astr 421	Introduction to Radio Astronomy	3 cr. (3 and 0)
Biol 100	Introduction to the Biological Sciences	1 cr. (1 and 0)
Bot 331	Introductory Plant Taxonomy (Replaces Bot 356)	3 cr. (2 and 3)
Math 231	Mathematics of Life Insurance	3 cr. (3 and 0)
Math 430	Actuarial Finite Differences	3 cr. (3 and 0)
Math 431	Theory of Interest	3 cr. (3 and 0)
Math 432	Actuarial Science Seminar	1 cr. (1 and 0)
Math 481	Seminar in Mathematics	1-3 cr. (1-3 and 0)

(B) Change in Credit Hours

Phys 401	Senior Thesis- (Changed from 3 cr.)	Variable 1-3 credits
Phys 402	Senior Thesis- (Changed from 3 cr.)	Variable 1-3 credits
Zool 456	Parasitology - (Changed from 3 cr. (2 and 3)	4 cr. (3 and 3)

(C) Curricula

(1) Mathematical Sciences Curriculum with Actuarial Science Option

EDUCATIONAL COUNCIL MINUTES, MARCH 5, 1973 (Continued)

FRESHMAN YEAR

First Semester		Second Semester	
Math 106 Cal of One Variable	4(4,0)	Math 108 Calculus	4(4,0)
Engl 101 English Composition	3(3,0)	Cp Sc 205 Elem Comp Program	3(3,0)
Hist 172 or 173 Western Civ	3(3,0)	Engl 102 English Composition	3(3,0)
Chemistry 101 General Chemistry	4(3,3)	Chemistry 102 General Chemistry	4(3,3)
Elective	3	Elective	3
	17		17

SOPHOMORE YEAR

Math 206 Cal of Several Variables	4(4,0)	Math 208 Engr Math I	4(4,0)
Math 301 Stat Th & Methods I	3(3,0)	Math 295 Foundations of Analysis	3(3,0)
Math 231 Math of Life Insurance	3(3,0)	Elective†	3
Phys 122 Mech & Wave Phen	3(3,0)	Econ 200 Economic Concepts	3(3,0)
Literature Requirement**	3	Literature Requirement**	3
	16		16

JUNIOR YEAR

Math 411 Linear Algebra	3(3,0)	Math 402 Th of Probability	3(3,0)
Math 453 Adv Calculus I or Math 463 Math Analysis I	3(3,0)	Math 454 Adv Calculus II or Math 464 Math Analysis II	3(3,0)
Acct 200 Managerial Acct	3(3,0)	Econ 306 Risk & Insurance	3(3,0)
Econ 314 Intermediate Economics	3(3,0)	Fr 102 Elementary French or Ger 102 Elementary German	4(3,1)
Fr 101 Elementary French or Ger 101 Elementary German	4(3,1)	Acct 314 Intermediate Acct	3(3,0)
	16		16

SENIOR YEAR

Math 403 Stat Inference	3(3,0)	Math 430 Actuarial Finite Dif	3(3,0)
Math 412 Intro to Mod Algebra or Math 419 Appl Comb Algebra	3(3,0)	Math 431 Theory of Interest	3(3,0)
Engl 301 Public Speaking	3(3,0)	Math 432 Actuarial Science Seminar	1(1,0)
Mgt Sc 311 Intro to Econometrics	3(3,0)	Elective†	10
Elective†	3		17
	15		

130 Total Semester Hours

** To be selected from the following: English 203, 204, 205, 206, 207, 208.
† Elective must be approved by advisor.

EDUCATIONAL COUNCIL MINUTES, MARCH 5, 1973 (Continued)

(C) Curricula (continued)

(2) Mathematical Sciences Curriculum with Physchology Option

FRESHMAN YEAR

First Semester		Second Semester	
Math 106 Cal of One Variable	4(4,0)	Math 108 Calculus	4(4,0)
Hist 172 or 173 Western Civ	3(3,0)	CpSc 205 Elem Comp Program	3(3,0)
Engl 101 English Composition	3(3,0)	Engl 102 English Composition	3(3,0)
Chemistry 101 General Chemistry	4(3,3)	Chemistry 102 General Chemistry	4(3,3)
Elective†	3	Elective†	3
	17		17

SOPHOMORE YEAR

Math 206 Cal of Several Variables	4(4,0)	Math 208 Engr Math I	4(4,0)
Math 301 Stat Th & Methods I	3(3,0)	Math 295 Foundations of Analysis	3(3,0)
Literature Requirement**	3	Literature Requirement**	3
Phys 122 Mech & Wave Phen	3(3,0)	Biol 101 Principles of Biology	3(3,0)
Econ 200 Elem Concepts	3(3,0)	Psych 201 General Psychology	3(3,0)
	16		16

JUNIOR YEAR

Math 411 Linear Algebra	3(3,0)	Math 402 Th of Probability	3(3,0)
Math 453 Adv Calculus I or Math 463 Math Analysis I	3(3,0)	Math 454 Adv Calculus II or Math 464 Math Analysis II	3(3,0)
Bot 102 Principles of Botany	2(2,0)	Zool 102 Principles of Zoology	2(2,0)
Bot 104 Lab Exercise in Botany	1(0,2)	Zool 104 Lab Exercise in Zoology	1(0,2)
Psych 202 Intro to Exper Psych	3(3,0)	Psych 363 Exper Psychology II	4(3,3)
Fr 101 Elementary French or Ger 101 Elementary German	4(3,1)	Fr 102 Elementary French or Ger 102 Elementary German	4(3,1)
	16		17

SENIOR YEAR

Math Elective*	3	Math Elective†	3
Math 412 Intro to Modern Algebra or Math 419 Appl Comb Algebra	3(3,0)	Psych 471 Psychometrics	3(3,0)
Psych 401 Appl Psychology	3(3,0)	Electives†	10
Engl 301 Public Speaking	3(3,0)		16
Elective†	3		
	15		

130 Total Semester Hours

** To be selected from the following: English 203, 204, 205, 206, 207, 208.
* To be selected from the following: Math 403, 404, 405.
† Elective must be approved by advisor.

Action: Approved.

EDUCATIONAL COUNCIL MINUTES, MARCH 5, 1973 (Continued)

3. Credit Awarded for Acceptable Work

Statement and Recommendation: The Dean of the University recommends that credit be awarded for acceptable work in lieu of assigned letter grades in recognition of college-level achievement as determined by institutional special examinations, College Board Advanced Placement Examinations, College Level Examination Program and similar instruments.

Action: Approved.

4. Re-arrangement of Credit Loads

Statement and Recommendation: The Dean of the University recommends that the Vice President for Academic Affairs and Dean of the University be empowered to approve for all colleges a re-arrangement of credit loads by semesters in order that students can be scheduled for at least fifteen credit hours during the fall semester or both semesters exclusive of Military and Air Science courses.

Action: Approved.

A. W. Rigsby
Secretary

MINUTES OF THE MEETING OF THE FACULTY SENATE

February 13, 1973 Olin Hall Auditorium

The meeting was called to order at 4:15 p.m. by President Rogers. The minutes of the December meeting were approved as circulated.

In reporting on meetings attended, President Rogers informed the Senate that Dr. Kenneth Wells has visited the campus recently in an effort to promote a National Dividend Foundation Seminar to be held at the Clemson House. Faculty members will be invited to dinner and the seminar. President Rogers also stated that the report from the Southern Association regarding Clemson's Self-Study is available in Dean Hurst's office to anyone wishing to read it. Clemson will need to make several supplemental reports over the next few years.

Student Senate Resolution R-73-33 regarding instructors remaining available for student conferences until the end of exam period and the proposed Honor System for Clemson University were referred to the Admissions and Scholarship Committee.

President Rogers stated that Mr. C. E. Woodall of the Business and Finance Office had called concerning insurance premiums for nine month faculty members having insurance coverage beyond that provided by the state. The June insurance premiums will be deducted from the second pay check in May and Mr. Woodall would like suggestions as to how these faculty members would like the July and August premiums withheld. It was stated that whatever method for payment was used, all faculty members would use the same method.

Prof. Hodges moved that salaries for nine months faculty members be paid over a twelve month period on a bi-weekly basis. The motion received a second, but failed to carry.

In discussion related to insurance coverage, it was pointed out that in the past employees leaving the University after the second semester had been allowed to continue in Clemson's group program until they were covered at their new position. This can not be done now since the insurance is provided by the State. It was asked that President Rogers suggest Mr. Woodall inquire with the company carrying the insurance to determine if the company would allow these persons to continue under the group program during the summer months.

In committee reports, Prof. Castro indicated that the Policy Committee is considering faculty work loads and this information will be presented at the next Senate meeting.

The Policy Committee presented the following motion regarding tenure for Extension faculty:

"Whereas The extension faculty has been granted academic appointment as of January 1, 1972, and

Whereas The faculty manual states that (1) a minimum of 4 academic years of service at Clemson University is a prerequisite for tenure at any rank, (2) the total period of full-time service at Clemson University prior to the acquisition of tenure will not exceed seven years, and (3) previous full time employment

at other institutions of higher learning will be applied up to three years of service beyond the required minimum of 4 years; therefore

Be it resolved that in cases where the faculty member's service to the University is the same as that performed prior to the granting of academic appointment, he should be considered for tenure when he qualifies (based on total time of service) without regard to the date academic rank was granted."

The motion was seconded and passed unanimously.

Another motion from the Policy Committee was presented regarding the committee involved in the selection of deans. The motion as presented is as follows;

"Although Dean Hurst has asked for a two year moratorium on changes to the Faculty Manual, there are certain revisions which must be considered before that time.

The Faculty Manual states "For the selection of the dean of a college the Dean of the University shall appoint the committee from the faculty within the college."

The purpose of the committee is to advise in the selection process. We feel that this process can be improved if the committee truly represents the faculty viewpoint. Therefore,

Be it resolved that the above statement be changed to read: For the selection of the dean of a college, the committee shall consist of at least one elected representative from the faculty of each department in that college."

After a second, the motion carried. Prof. Hodges asked that his negative vote be recorded in the minutes.

Prof. Fanning, reporting for the Admissions and Scholarship Committee, stated that the grading system at Clemson University will be studied in the near future. It was indicated that Dean Green plans to appoint a committee for this purpose at the March meeting of the Undergraduate Council.

The Admissions and Scholarship Committee presented the following motion:

"Whereas, according to the Constitution and By-Laws of the Faculty and Faculty Senate, (Article I, Section 2. Functions) "the functions of the faculty shall be to approve candidates for degrees";

Whereas, there is no uniform policy currently in effect for faculty approval of graduate degrees,

Be it resolved that candidates for graduate degrees be approved for graduation by the college responsible for their program at the same time as candidates for undergraduate degrees are approved; in case of interdisciplinary graduate degree candidates, they will be approved by each College responsible for the program.

MINUTES OF THE MEETING OF THE FACULTY SENATE, FEBRUARY 13, 1973 (Continued)

Be it also resolved that no graduate student who has met the requirements of graduation as stipulated by the Office of the Dean of Graduate Studies, and who has been approved by the appropriate college faculty or faculties be denied participation in the graduation exercises and be denied having the degree conferred upon him.

Be it also resolved that if a graduate degree is disapproved by the appropriate college faculty, the dean of that College will notify, in writing as soon as possible, both the candidate and the Dean of Graduate Studies of this action and give the reasons for the disapproval."

After a second, there was considerable discussion concerning the motion. The motion carried.

In response to Student Senate Bill No. B-72-05, the Admissions and Scholarship Committee moved the following changes be made to Section VII - Academic Procedures and Rules, 1972-73 Student Handbook, page 186, dealing with class attendance:

1. In par. 1 delete the third sentence "For this . . . privilege".

2. Amend par. 3 to read:

"It is recognized that students sometimes have personal emergencies, business, or problems that necessitate absences which are not covered by the rules in paragraph 2. A limited number of such absences may be permitted by the instructor, provided these absences do not coincide with major, scheduled activities of the course, such as quizzes, laboratory experiments, field trips, class discussions, etc. Individual instructors are urged to establish their own attendance policy and to insure that every member of the class is informed of it. When an instructor's policy has been violated, the individual student shall be promptly notified."

3. Omit Par. 3 sections a, b, and c.

4. Omit Par. 4, all sections.

5. Change Par. 5 to 4.

6. Change Par. 6 to 5.

7. Omit Par. 7.

8. Change Par. 8 to 6.

The motion was seconded, after which followed a general discussion of class attendance regulations.

Prof. Castro presented a substitute motion that the Faculty Senate generate a committee to work with the Student Senate to rewrite class attendance regulations. After a second, the substitute motion failed to carry 12 to 17.

MINUTES OF THE MEETING OF THE FACULTY SENATE, FEBRUARY 13, 1973 (Continued)

The original motion then carried 20 to 10.

In response to directions from the December meeting of the Senate, Prof. West presented the following motion in regards to annual leave for faculty members.

"Whereas the current Clemson University Faculty Annual Leave Policy was adopted with those restrictions of previous South Carolina State legal provisions that limited the annual leave accrual rate and the total day carry over allowance, and

Whereas the 1971-72 South Carolina State Legislature did revise the annual leave provisions for all permanent state employees but did exclude from the revised policy those employees of state higher education institutions holding academic rank or titles, and

Whereas the Revised South Carolina State Annual leave policy does provide certain benefits which are superior to current Clemson University Faculty leave policy, and

Whereas the current Clemson University Faculty Annual leave policy has been shown to be inferior to other land grant institutions, (Report of Ad Hoc Committee of Research Faculty Council on Clemson University Leave Policy for faculty, March 26, 1969.) therefore be it

Resolved that the Clemson University Faculty Annual Leave policy be revised to incorporate benefits which would allow an increased carryover allowance to 45 days with an accrual rate of 24 days per year.

Be it further resolved that the revised annual leave policy shall apply to the 1973 calendar year.

The motion was seconded and carried unanimously.

In new business, Prof. Godbout presented the following resolution:

"Whereas, the parking problem on campus is becoming serious and in view of planned changes threatens to become acute;

Whereas, the 241 reserved parking permits seriously limit the availability of remaining parking spaces;

Whereas, the frequency with which reserved spaces are unoccupied provides evidence of the ineffectiveness of the policy that the holders of the space notify others of its availability; and

Whereas, there are drastic inconsistencies in the assigning of reserved parking spaces,

Be it resolved that reserved parking permits be limited to Executive Officers, Full Deans, and physically handicapped persons.

The motion was seconded and carried unanimously.

MINUTES OF THE MEETING OF THE FACULTY SENATE, FEBRUARY 13, 1973 (Continued)

Prof. Beckwith introduced the following resolution concerning a performing arts building.

"Be it resolved that the Faculty Senate strongly endorses the resolution on the priority for a performing arts building on campus passed by the University Fine Arts Committee on December 5, 1972."

The University Fine Arts Committee's resolution is as follows:

"Whereas the need for facilities that would enable Clemson University to properly present theatrical and musical events for the student body and the public has become increasingly evident, and whereas adequate facilities do not exist on the campus, a fact that has on several occasions led to embarassing confrontations with visiting artists and has forced the various presenting agencies (Concert Series, Clemson Players, etc.) to limit the scope of their offerings even to the detriment of meeting public cultural appetites, and whereas increasing restrictions and demands on existing, inadequate facilities further limit the offerings of the University's performing agencies, and Whereas Clemson University's emerging role as a cultural as well as an educational agency of the State and the area would be greatly enhanced by the construction of a Performing Arts Center that could easily stand as the finest such facility on any state-supported college or university campus in South Carolina, be it therefore resolved that the Fine Arts Committee of Clemson University go on record as petitioning the central administration of the University, its President and its board of Trustees, for the assignment of a high priority in development of campus facilities to the construction of a Performing Arts Building."

The motion received a second and passed unanimously.

Prof. Shannon reported that he has received some names of persons willing to serve on the Board of Directors to plan a Faculty Club, and requested that other interested persons please submit their names to him.

Several Senators expressed an interest in having more information than was presented at the September Senate meeting regarding salary totals from the budget information.

After lengthy discussion, Prof. Vaughan moved that the President and Vice President of the Faculty Senate meet with Dean Hurst in an effort to obtain information regarding increases in academic salary totals as reflected in printed information received by the Senate. The motion received a second and passed unanimously

There being no further business, the meeting was adjourned at 6:42 p.m.

Respectfully submitted,

B. J. Skelton

B. J. Skelton

Absent from the meeting: C. R. Dillon

MINUTES OF THE UNIVERSITY LIBRARY COMMITTEE MEETING, FEBRUARY 12, 1973

Present: Ralph E. Knowland (Chairman), William Baron, R. J. Calhoun, Elizabeth Galloway, Opal S. Hipps, Ursula A. Holahan, John R. Ray, R. E. Schoenike, D. B. Stafford, J. M. Wannamaker, J. W. Gordon Gourlay (Secretary).

Guests: James Dalton (College of Architecture), T. D. Efland (College of Industrial Management and Textile Science).

1. Minutes of meeting of January 11 were approved.

2. Mr. Gourlay reported that the administration had approved Clemson's membership in the Southeastern Library Network.

3. Dr. William Baron reported that the Ad Hoc Committee to Study Student Senate Resolution No. R-73-08 concerning the extension of library hours had met, study was in progress and the committee expected to have a report at the March meeting. Other members of this committee are R. J. Calhoun and Joseph Hutchinson.

4. Guests James Dalton and T. D. Efland outlined the purpose and function of the College of Architecture Library and the Sirrine Library. Discussion followed. The library collection in the Physics department and the Chemistry department were also discussed. A report by Mrs. Peggy Cover, Head, Science Technology and Agriculture Division of the Library was distributed. Mr. Gourlay will prepare some recommendations for discussion at the next meeting of the committee.

5. Items of Information:

(1) Since the accreditation of Clemson University was reaffirmed at the December meeting of the Southeastern Association of Colleges and Schools, (Clemson Newsletter, February 1, 1973) the recommendations made in the library section of the report will be discussed at an early meeting of the University Library Committee.

(2) The library is experiencing problems in identifying many persons who are enrolled in off-campus courses, who need books but who have not been issued ID cards. Since the procedure for providing ID cards has been established Mr. Gourlay will make the necessary inquiries.

(3) The State Library Board under a federal grant has microfilmed the Clemson University card catalog and the card catalog of the University of South Carolina. Within the next three weeks the USC catalog will be available in the microfilm room, main floor of the library.

6. Time of next meeting, Monday, March 12, at 3:30 p.m.

MINUTES OF THE AUDIO-VISUAL COMMITTEE MEETING, FEBRUARY 13, 1973

The February meeting of the University Audio-Visual Committee was held at 3:00 p.m. in Strode Tower. The following members were present: J. F. Allen, William F. Beckwith, Thomas E. Douglass, Harry Durham, J. C. Hubbard, Jr., M. W. Jutras, James Veitenheimer, Betty Watkins, and Sam Wang.

The meeting was called to order by Chairman Jutras. The January minutes were approved.

Chairman Jutras brought before the committee the difficulty encountered in finding a meeting time convenient for all committee members after polling the committee earlier in the month. Following a discussion the committee decided to continue to meet at the regular time, 3:00 p.m. on the second Tuesday of each month.

Chairman Jutras brought to the attention of the group the plans for installation of a conference telephone for instructional purposes. The University Communications Center is coordinating the project.

Chairman Jutras called for the subcommittee reports. Dr. Douglass reported the AV Hardware/Software questionnaire was mailed on February 13. Mr. Veitenheimer stated that plans for AV day were progressing well. Five responses have been received from department heads regarding types of hardware they would like to have included in the display.

Chairman Jutras called for new business. Mr. Durham reported to the group that he is participating in an English department course on broadcasting. Mr. Durham is serving as a resource person.

The committee requested that Chairman Jutras appoint a subcommittee to look into the possibility of the AV committee sponsoring an intensive AV short course or seminar on the development and effective use of instructional materials.

The meeting was adjourned at 4:00 p.m.

GEOLOGY

Professor Robert L. Nichols will be a Visiting Geology Lecturer on campus April 5 and 6. He is a noted polar geologist, having carried out extensive research in Greenland, Alaska, Antarctica and South America. He will lecture Thursday at 7:30 p.m. in Room 131, Brackett Hall on, "Man Hauling in the Antarctic." Friday, April 6 he will deliver lectures at 8:00 a.m. in Room 235, Brackett Hall, on "The Geomorphology of the Antarctic" and again at 10:00 a.m. on "Catastrophics in Geology."

GRADUATE COUNCIL MINUTES, FEBRUARY 9, 1973

The meeting of the Graduate Council was called to order by Dr. Brown. Those present were: Dr. Cool (for Dr. Allen), Dr. Bolen, Dr. Camper, Dr. Freeze, Professor Means, Dr. Brawley, Dr. Dysart, Mr. Mushinsky, and Mr. Brusse. Attending as visitors were Professor Godbout and Dean Labecki.

The minutes of the January 12, 1973 meeting were approved as distributed.

Mr. Oscar Henry's request concerning foreign language credit was discussed. A motion was made to delay action on the request until additional information could be obtained. The motion was seconded and approved unanimously.

A new policy on credit hour load for graduate students was discussed and a motion was made to table any action until the next meeting. The motion was seconded and approved.

The following graduate course was approved:

Engl 641 - Continental Fiction in Translation

Dean Schwartz had administratively approved the following graduate courses with description and/or title changes:

Ch E 806 - Process Systems Analysis and Simulation I
Ch E 807 - Process Systems Analysis and Simulation II
ME 601 - Design of Machine Elements
ME 611 - Thermal Power Systems

Professors Godbout and Means and Dean Labecki gave a report on the proposed Master of Science program in the College of Nursing. A discussion period followed after which a motion was made to accept the report as information to be acted on at the next meeting. The motion was seconded and passed unanimously.

Dr. Camper raised the question of minor areas of concentration for graduate students where no degree programs exist. Dean Schwartz stated the minors that are recognized by the Commission on Higher Education as existing programs (listed in the graduate catalog) can be used by students on their Plans of Study and other forms which might necessitate listing a minor.

A motion was made to adjourn. This motion was seconded and passed unanimously.

COMMITTEE TO STUDY THE CLEMSON UNIVERSITY GRADING SYSTEM FOR UNDERGRADUATES

The formation of a University-wide Committee to Study the Clemson University Grading System for Undergraduates has been announced by Dr. Claud B. Green, Dean of Undergraduate Studies.

Agreeing to serve on this Committee are Dean K. N. Vickery, Office of Admissions and Registration, Chairman; Dr. L. W. Baxter, College of Agricultural Sciences; Professor D. W. Bradbury, College of Engineering; Professor R. L. Cross, College of Liberal Arts; Dr. J. C. Fanning, College of Physical, Mathematical, and Biological Sciences; and Mr. Rodney M. Sprott, Clemson University undergraduate student.

The Committee has been asked to make its report to Dean Green not later than March 1, 1974.

HONORS PROGRAM COUNCIL ANNOUNCEMENT

The Honors Program Council wishes to remind advisors that all students with a 3.0 average or better are eligible to participate in the Honors Program of the University by registering for honors courses. Students with high capabilities find the more sophisticated approaches and in depth coverage available through such classes to be more challenging than classes designed for the average student, and often are able to produce more work of a higher quality than they might in the ordinary course. Please discuss Honors classes with your students with high GPR's and encourage them to consider registering in such sections.

COUNSELING CENTER

The Counseling Center sponsored a seminar on Human Relations Development for members of the Clemson faculty and staff March 9 & 10. Leading the seminar were two University of Georgia doctoral students, William Childers and Richard Walters.

ZOOLOGY

S. A. Gauthreaux, Jr. (Asst Prof) attended a conference on transparent aircraft enclosures and the bird/aircraft hazard at Las Vegas in Feb. He presented a paper, "Quantification of Bird Echoes on Airport Surveillance Radars" which will appear in the proceedings of the conference.

BIOCHEMISTRY

D. M. Henricks (Assoc Prof) presented a seminar on "Biochemical Regulation of Reproduction," at Wesleyan College in Macon, Ga. on Feb. 22.

J. J. Jen (Asst Prof) presented an invited seminar entitled, "Plant Cell Wall Polysaccharides" to the department of Biology, Western Carolina University, Cullowhee, N. C. on Feb. 15.

J. J. Jen presented an invited talk on "Biochemistry of Fruit Ripening" to the department of Biological Sciences, Lee College, Cleveland, Tenn. on Feb. 16.

G. L. Powell (Asst Prof) gave a seminar entitled "New Wineskins for Old Wine: the Biochemical Basis of Alcoholism" at Truett McConnell College, Dahlonega, Ga. and at Agnes Scott College in Decatur, Ga. on Feb. 14.

J. M. Shively (Prof and Hd) presented a seminar at Western Carolina University, Cullowhee, N. C. entitled "Molecular Architecture of Cellular Membranes," on Feb. 26.

BOTANY

Clyde J. Umphlett (Prof and Hd) and C. S. Huang (Chipola Junior College, Marianna, Fla.) had a paper published in the Journal of Invertebrate Pathology, Volume 20, pp. 326-331, entitled "Experimental Infection of Mosquito Larvae by a Species of the Aquatic Fungus, Lagenidium.

COLLEGE OF ENGINEERING

A research contract from Greenwood Mills has been awarded to Electrical and Computer Engineering for studies relating to the design of process control instrumentation in the textile environment. This work is being done by Lyle C. Wilcox (Assoc Dean for Professional Studies), B. E. Gilliland (Assoc Prof), J. N. Gowdy (Asst Prof), T. L. Kane (Asst Prof), and M. L. Wolla (Prof) and is funded at $84,963 per year.

The Hughes Aircraft Company has for the third straight year subscribed to the College of Engineering Industrial Associates Program. Five thousand dollars is to be used by the College of Engineering to promote industrial liaison through short-term design projects and seminars in areas of special interest to industry.

COLLEGE OF ENGINEERING (Continued)

The National Aeronautics and Space Administration has just signed an agreement in which the loan of a highly sophisticated parallel digital processor will be made to the department of Electrical and Computer Engineering. The unit called "Trice," is of a unique design and has been used by NASA for conducting high-speed simulations relating to space flight studies. This parallel processor will be used in the College of Engineering both as an instructional device and as a research tool for investigating problems that require the accuracy of digital equipment and the speed of analog simulators. John Gowdy (Asst Prof) is in charge of this equipment. The acquisition value of the system was $648,006. This brings to over $745,031 the value of the equipment that is presently being used in the College for research and teaching purposes under the equipment loan program from NASA at Marshall Space Flight Center, Alabama.

Sangamo Electric Corporation, West Union Plant, has recently made a gift to the College of Engineering of two new Sangamo Digital Data Loggers. These units are valued at $12,500 each and are capable of accepting signals from process control transducers, conditioning these signals, digitizing them, and storing them on punch paper tape media. These units are particularly well suited to applications where large numbers of transducers must be scanned over long periods of time.

COLLEGE OF PHYSICAL, MATHEMATICAL AND BIOLOGICAL SCIENCES

R. K. Guthrie (Assoc Dean) and Donald S. Cherry, doctoral student in Zoology, presented an invited lecture entitled "Thermal Loading Effects on Aquatic Organisms" at the 55th Texas Water Utilities Associations Short School at Texas A & M University on Mar. 5. The lecture will be published in the Proceedings of the Association.

ENGLISH

Harriet Holman (Prof) has published "Magazine Editors and the Stories of Thomas Nelson Page's Late Flowering" in Essays Mostly on Periodical Publishing in America. The volume is in honor of Professor Clarence Ghodes of Duke. Dr. Holman recently attended the presentation festivities in Durham.

FOOD SCIENCE

J. H. Mitchell, Jr. (Prof) served as chairman of the Decennial Committee which made arrangements for the tenth anniversary observance of the founding of the Food Science and Technology Section of ASAW, Feb. 4-10.

FOOD SCIENCE (Continued)

Donald M. Henricks (Assoc Prof) is serving as chairman of the South Carolina Nutrition Committee. This committee is interested in improving nutritional practices among the citizens of South Carolina. The committee encourages the participation of any organization in the State that has an interest in nutrition education. After some years of inactivity, the committee is holding its annual meeting in Columbia on Apr. 4-5.

The following research presentations were made at the Association of Southern Agricultural Workers, Inc., Food Science and Technology Section in Atlanta, Ga., Feb. 4-10:

"Activities of Pectinolytic Enzymes in Peaches Infected with Monolinia fructicola," by J. J. Jen (Asst Prof) and V. A. Paynter (Grad Stu).

"The Composition of Proteineous Amino Acids for Two Varieties of Freestone Peaches During Ripening," by J. J. Jen (Asst Prof), C. S. Graham (Grad Stu) and I. M. Ibrahim (Instr).

"The Effect of Monochronic Lights on the Color Development of Tomato Fruits During Ripening," by J. J. Jen (Asst Prof).

"The Changes of Polyphenoloxidase Activities in Freestone Peaches During Development and Maturation," by J. J. Jen (Asst Prof) and K. R. Kahler (1972 SSTP participant).

"Extruded, Texturized Poultry Meat Tissue: Composition and Functional Properties," by J. C. Acton (Asst Prof).

"The Effect of Freezing on Properties of Poultry Meat Loves," by J. C. Acton (Asst Prof) and J. E. Keller (Grad Stu).

"Rate of Change in Fatty Acid Composition of Broiler Adipose Tissue as Controlled by Dietary Fats," by J. C. Acton (Asst Prof), J. J. Jen (Asst Prof), W. P. Williams, Jr. (Prof and Hd), W. E. Johnston (Assoc Prof, Exp Stat), and V. A. Paynter (Grad Stu).

"Effect of Fermented Meat pH on Properties of Summer Sausage," by J. C. Acton (Asst Prof), J. E. Keller (Grad Stu) and M. G. Johnson (Asst Prof).

"Changes in Emulsion Components During Fermentation, Heat Processing and Drying of Summer Sausage," F. B. Wardlaw (Grad Stu), G. C. Skelley (Prof, Animal Sci), and J. C. Acton (Asst Prof). This presentation won an "Outstanding Student Scientist Award" for Mr. Wardlaw. The award is sponsored by Gold Kist, Inc.

FOOD SCIENCE (Continued)

"Behavior of Staphylococcus aureaus S-6 Grown in Competition with Starter Culture of Pediococcus cerevisiae and Lactobacillus plantarum," by A. W. Stewart (Grad Stu), Lyn Hogarth, J. C. Acton (Asst Prof) and M. G. Johnson (Asst Prof).

"Survival and Growth of Clostridium perfringens BP6K During Fermentation of Turkey Roll with Pediococcus cerevisiae," by J. W. Findley, Jr. (Grad Stu), J. C. Acton (Asst Prof), and M. G. Johnson (Asst Prof).

"Cholesterol Metabolism in Rabbits as Influenced by Dietary Cholestyramin, Pectin and Fat," by R. F. Borgman (Prof) and F. B. Wardlaw (Grad Stu).

ENVIRONMENTAL SYSTEMS ENGINEERING

John F. Andrews (Prof and Hd) and S. P. Graef (former Grad Stu) presented a paper entitled, "Mathematical Modeling and Control of Anaerobic Digestion" at the 74th National AIChE meeting, New Orleans, Mar. 13.

Johh H. Austin (Prof) attended the planning session of the Third National Conference on Environmental Engineering Education. He is serving as chairman of a session on curricula development for the environmental engineering technician and the environmental engineering technologist. In addition he lead sessions at the Instructors Training Workshop Mar. 19-20, held for the Environmental Protection Agency (EPA) at Orange Coast Community College. This workshop was based on instructional techniques and materials developed by Environmental Systems Engineering for the Environmental Protection Agency. On Mar. 28 Dr. Austin presented a report on the work of the Environmental Health Task force of the South Carolina department of Health to the Advisory Council for Comprehensive Health Planning of the Board of Health. Dr. Austin has served as chairman of this task force for the last two years.

HORTICULTURE

R. J. Ferree (Assoc Prof), C. E. Gambrell, Jr. (Asst Hort), and E. T. Sims, Jr. (Prof) attended the 32nd National Peach Council Convention in Washington, D.C. Feb. 25-28, and participated in two Research-Extension Work-Study Sessions sponsored by the Council.

MATHEMATICAL SCIENCES

The Office of Naval Research has awarded a $20,000 contract acceleration to continue work in the area of Applied Statistical Analysis. The contract totals $83,000 to date. K. T. Wallenius (Prof) is project director.

MATHEMATICAL SCIENCES (Continued)

John D. Fulton (Assoc Prof) has had the following articles published recently: "Characterization and enumeration of linear classes of involutions over a finite field," Linear Algebra and its Applications, Vol. 6 (1973), pp. 119-127. "Linear classes of involutions over fields of characteristic two," Linear Algebra and its Applications, Vol. 6 (1973), pp. 129-142.

K. T. Wallenius (Prof) spoke on "Deceptive Statistics" at North Georgia College under the auspices of the Visiting Lecturer Program jointly sponsored by the American Statistical Association, the Institute of Mathematical Statistics and the Biometric Society (ENAR).

John Kenelly (Prof and Hd) and Joel V. Brawley, Jr. (Prof) chaired sections on Graph Theory and Combinatorics I and II, respectively, at the 52nd annual meeting of the Mathematical Association of America, Southeastern Section, at Raleigh, N. C. on Mar. 9-10. Papers were presented at this meeting by the following members of the department of Mathematical Sciences:

"Eight blocks - fascinating solution of a frustrating puzzle," Andrew Sobczyk (Prof).

"Some coloring numbers of r-partite graphs," Renu Laskar (Assoc Prof) and Bruce Auerbach (Grad Stu).

"Gauss sums and the number of solutions to the matrix equation $XAX^T = 0$ over GF(2Y)" - Philip G. Buckhiester (Instr).

MECHANICAL ENGINEERING

C. A. Brandon (Assoc Prof) will make a presentation "Hyperfiltration Pilot Plant for Textile Wastewater Reuse" at the national meeting of the American Chemical Society in Dallas, Apr. 9 and at the Textile Engineering Conference of the American Society of Mechanical Engineers in Charlotte on Apr. 12.

C. A. Brandon (Assoc Prof) and M. H. Tennant (former Grad Stu) will present a paper "Fluid-Particle Interaction in Two-Phase Pipe Flow" at the American Society of Mechanical Engineers' Symposium on Flow Studies in Air and Water Pollution on June 20-22 in Atlanta.

M. W. Dixon (Asst Prof) and C. O. Huey, Jr. (Grad Stu) will present "Fundamentals of Kinematic Synthesis" at the Textile Engineering Conference of the American Society of Mechanical Engineers in Charlotte on Apr. 12.

ELECTRICAL AND COMPUTER ENGINEERING

J. C. Martin (Prof) presented a paper, "Evaluation of Minimum Variance Estimators for State Derivatives," at the Southeastern Symposium on System Theory, Mar. 23 at Duke University. The paper was co-authored by R. W. Snelsire (Assoc Prof).

T. L. Drake (Assoc Prof), G. D. VanVoorhis (Kennecott Explorations Services), and P. H. Nelson (KES) had a paper entitled, "Complex Resistivity Spectra of Porphyry Copper Mineralization," published in the Feb. 1973 issue of Geophysics.

M. L. Wolla (Prof) presented a paper "ISDL: Instructional Systems Development Laboratory," (co-authored by D. C. Stanzione), at the IEEE Milwaukee Symposium on Automatic Conrrols, Milwaukee, Wis. on Mar. 9.

R. R. Glenn (Grad Stu) presented a paper, "Use of a Mini-Computer in the Analysis of Speech Patterns," co-authored by J. W. Lathrop (Prof) at the IEEE Milwaukee Symposium on Automatic Controls, Milwaukee, Wis. on Mar. 9.

R. R. Glenn (Grad Stu) presented a paper entitled, "Use of Interactive Graphics Terminal in the Synthesis of Speech," co-authored by J. W. Lathrop (Prof), at the fifth annual Southeastern Symposium on System Theory, at Raleigh, N. C. on Mar. 23.

MICROBIOLOGY

M. J. B. Paynter (Assoc Prof and Hd) visited the Medical University of South Carolina on Jan. 16 and presented a seminar entitled, "Ecological Aspects of Bacteriophages" to the faculty and students of the Microbiology department. An invited lecture on "The History and Biology of Bacteriophages" was also presented to the dental students.

PHYSICS AND ASTRONOMY

Malcolm J. Skove (Alumni Prof) and B. E. Powell (West Ga. College) published a paper entitled, "Combinations of Third-Order Elastic Constants of Zinc and Cadium," in Journal of Applied Physics. February, 1973.

CALENDAR OF CAMPUS EVENTS

April	1	Sun.		Baseball at Maryland.
April	1	Sun.	8:00 p.m.	CSU Fine Arts Film, Holtzendorff Hall (YMCA).
April	2	Mon.	8:00 p.m.	German Feature Film (English sub-titles) - Daniel Auditorium - free.
April	2	Mon.	7:30 p.m.	Rabbi Aaron Gottesman (Beth Israel Synagogue, Greenville), Dr. J.R. Vaughn (Redfern Health Center), W.J. Fedder (Seneca lawyer) will discuss abortion - YMCA TV room - sponsored by Hillel-Brandeis.
April	2-4	Mon.-Wed.		CSU Movie, "The Other" - Holtzendorff Hall (YMCA).
April	3-5	Tues.-Thurs.		"Conference on the Biological Aspects of the Bird/Aircraft Collision Problem" sponsored by the Air Force Office of Scientific Research. Dept. of Zoology (host).
April	3	Tues.		Clemson Area Continuing Education Classes.
April	3	Tues.	4:00 and 8:00 p.m.	Our Daily Bread - History Film Series-Daniel Auditorium.
April	3	Tues.		Tennis - men's singles, women's singles; single elimination.
April	3-5	Tues.-Thurs.		"Safety and Health in Textile Manufacturing: short course - Repeat session. Dr. Donald W. Lyons, Assoc. Prof. of Textiles and Mechanical Engineering is the chairman. Sponsored by the College of I.M. & T.S.
April	4	Wed.		Baseball at South Carolina.
April	5	Thurs.	12:30 p.m.	Clemson University Woman's Club - Luncheon - "Spring Sing" - Clemson House.
April	5	Thurs.	8:00 p.m.	Graduate Wives meeting - YMCA.
April	5	Thurs.		Baseball at Georgia.
April	5-7	Thurs.-Sat.		CSU Movie - to be announced.
April	5	Thurs.	7:30 p.m.	Professor Robert L. Nichols, lecture on "Man Hauling in Antarctic," Room 131, Brackett Hall.
April	5	Thurs.		Tip-Off Banquet.

CALENDAR OF CAMPUS EVENTS Continued

April	5	Thurs.		Deadline for applications for Student Union Committee Chairmen.
April	6	Fri.		Baseball - Virginia.
April	6	Fri.	7:00 p.m.	Military Banquet - Harcombe Commons.
April	6	Fri.	9:00 p.m.	Military Ball - National Guard Armory.
April	6	Fri.	8:00 a.m.	Professor Robert L. Nichols, lecture on "The Geomorphology of the Antarctic," Room 235, Brackett Hall.
April	6	Fri.	10:00 a.m.	Professor Robert L. Nichols, lecture on "Catastrophics in Geology," - Room 235, Brackett Hall.
April	6-7	Fri.-Sat.	9:00 p.m.-1:00 a.m.	CSU Coffeehouse.
April	7	Sat.		Baseball - Georgia Southern.
April	7	Sat.	10:00 a.m.	Clemson Rifle Team at Wake Forest
April	7	Sat.	12:00 noon-6:00 p.m.	1st Annual CSU Bengal Ball Picnic - Y-Beach.
April	8	Sun.		Baseball - Wake Forest.
April	8	Sun.		Volleyball - inter-fraternity; double elimination.
April	8	Sun.		Horseshoes; round robbin; entries - April. 1 - 6.
April	8	Sun.	8:00 p.m.	CSU Fine Arts Film.
April	9	Mon.		CSU Movie, "Fillmore".
April	10	Tues.		Clemson Area Continuing Education Classes.
April	10-11	Tues.-Thurs.		"Texturing - Today and Tomorrow (Draw Texturing)" Conference. Dr. Hassan M. El-Behery, Manager of Textile Processing, Phillips Fibers Corp. is the chairman. The course is sponsored by the College of I.M.&T.S.
April	11	Wed.		Honors and Awards Day - classes suspended at 12 noon.
April	11	Wed.		Baseball at Georgia.

CALENDAR OF CAMPUS EVENTS Continued

April	11-14	Wed.-Sat.		CSU Movie, to be announced.
April	12-14	Thurs.-Sat.		Clemson Players Production: Dames at Sea Opened to the Public - Admission free - Daniel Hall Auditorium.
April	12	Thurs.	7:00 p.m.	Dr. Jack Frymier from Ohio State Univ., "A School for Tomorrow" -- Brackett Hall.
April	12	Thurs.		Track (spring); meet; entries - Apr. 3 - 6.
April	13	Fri.		Baseball at N.C. State.
April	13-14	Fri.-Sat.	10:00 p.m. &12:00 a.m.	CSU Coffeehouse presents Nick Hallman in concert.
April	13	Fri.		CSU and Outing Club Climbing Workshop.
April	14	Sat.		Graduate School Foreign Language Test.
April	14	Sat.		Baseball at North Carolina.
April	14	Sat.		Clemson Spring Game.
April	14-15	Sat.-Sun.		CSU Climbing Trip to Brevard, N.C.
April	14-15	Sat.-Sun.		CSU Retreat for old and new committee members.
April-May	15-7	Sun.-Mon.		Architecture exhibit - "The Television" - Lee Hall Gallery.
April	15-19	Sun.-Thurs.		College of Engineering - The Fifth International Symposium on Biomaterials entitled "Prostheses and Tissue: The Interface Problem."
April	15	Sun.		Baseball at Virginia.
April	15	Sun.	8:00 p.m.	CSU Fine Arts Film.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 17 April 15, 1973

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

APR 16 1973

WILCOX NAMED DEAN OF ENGINEERING

Dr. Lyle C. Wilcox, a member of the Clemson University engineering faculty for the past eight years, has been appointed dean of the University's College of Engineering.

Wilcox, 40, succeeds Dr. Linvil G. Rich who returned at his request to full-time teaching and research duties last October.

Prof. James L. Edwards has served as acting dean since then.

Wilcox's appointment followed an exhaustive study and consideration of qualified candidates by a Search Committee appointed in accordance with established faculty policies. With the Dean of the University, Dr. Victor Hurst, President Edwards then spent many hours interviewing, and discussing with the members of the several departments in the College of Engineering and individual faculty members, potential candidates for appointment as Dean.

A native of Lansing, Mich., Wilcox received his doctorate in electrical engineering from Michigan State University in 1963. He came to Clemson in 1965 as an associate professor of electrical and mechanical engineering, and was named Draper Professor of Mechanical Engineering. (Continued on page 4.)

Dr. Lyle C. Wilcox receives congratulations on his appointment as Dean of the College of Engineering from President Robert C. Edwards.

ADMIRAL McDEVITT NAMED VICE PRESIDENT FOR EXECUTIVE AFFAIRS

The appointment of retired U.S. Navy Rear Adm. Joseph B. McDevitt as Vice President for Executive Affairs at Clemson University was approved March 23 by the Board of Trustees.

McDevitt, who also will serve as secretary of the Board, will assume his new duties on July 1. He succeeds Maj. Gen. Allen W. Rigsby (USAF ret.) who will retire from the Clemson post on June 30, but will be retained on a consultant basis.

For four years until retirement from the Navy in April 1972, McDevitt was Judge Advocate General (the top Navy attorney) and was responsible directly to the Secretary of the Navy.

During a Navy career which spanned three decades, McDevitt was a leader in the innovation and implementation of an improved worldwide system for rendering legal services. He conceived and established a para-legal force to relieve lawyers of non-professional burdens.

McDevitt also contributed to development of U.S. policies on the continental shelf, resources of deep oceans, and general law of the sea. He has a bachelor's and law degree from the University of Illinois and holds membership in the American, Federal, and Inter-American Bar Associations and the American Society of International Law.

The Board also took these actions:

Reconfirmed a mail ballot decision in which it rejected all bids submitted last November on the preparation of the playing field in Clemson Memorial Stadium for the installation of synthetic turf. Board members agreed that the bids were too high to make the investment of funds practical.

Adopted a resolution in memorium to Lewis D. Holmes of Johnston who served on the Board for more than 13 years until his death in February.

Approved a new symbol to serve as a visual identification for the University.

Approved an increase, effective July 1, in the rental rates on faculty, staff, married student housing, and student residence halls in order that the housing will continue to be self-financing in accordance with state law.

Approved the naming of the proposed Dairy Science facility in honor of Joseph P. LaMaster, former head of the Dairy Science Department who served the University in that capacity or its equivalent for 37 years until retirement in 1957. The building will be known as LaMaster Dairy Center.

Agreed that a $165,000 bequest to Clemson from the late William J. Latimer be made a permanent endowment fund, the income from which will be used to buy books, manuscripts, and other library materials which cannot be obtained through appropriated funds.

Reconfirmed and approved mail ballot decisions which awarded a $24,838 contract to Thrasher Construction Co., Inc., of Greenville for an addition to the Bull Testing Facility, and a $56,986 contract to Automated Farm Systems of Clemson for construction of a new insectary.

Authorized the University President to expend the income from a $38,199 bequest to Clemson from the late William S. Megonigal Jr. as, in his judgment, is consistent with the best interests of the University.

TINDALL ELECTED CLEMSON TRUSTEE

The South Carolina legislature elected D. Leslie Tindall of Clarendon County to the Clemson University Board of Trustees.

Tindall, nominated by Sen. James M. Morris, D-Clarendon, and seconded by Rep. Gary E. Byrd, D-Darlington, won in a close vote, 81-71, over Louis F. Holmes of Edgefield County.

A Furman University graduate, Tindall will fill the vacancy created by the death of L.D. Holmes of Edgefield County.

Tindall was cited by the South Carolina Chamber of Commerce in 1962 as its Young Farmer of the Year, and in 1972 he was chosen among the top 15 farmers in the country by Ford Motor Co.

$10,000 SCHOLARSHIP FUND ESTABLISHED

A $10,000 Stanley Jackson Reeves Memorial Scholarship fund has been established at Clemson University by the family and friends of the late Mr. Reeves (1934-72), an Abbeville resident and 1956 Clemson graduate.

The fund will provide scholarship assistance to undergraduate students enrolled in the College of Industrial Management and Textile Science.

A native of Heath Springs, Reeves was manager of the weaving department of Abbeville Mills Corp. at the time of his death last June. He was employed by Deering Milliken Corp. throughout his 16-year professional career.

At Clemson he was a distinguished military graduate and member of Phi Psi National Textile Honorary Fraternity.

Contributions to the scholarship fund are being made through the Clemson University Office for Development.

18 CLEMSON FACULTY MEMBERS NAMED OUTSTANDING EDUCATORS OF AMERICA

Eighteen members of the Clemson University faculty have been named Outstanding Educators of America for 1973. Nominated earlier this year for this national recognition, they were selected on the basis of their professional and civic achievements. They are Dr. Wallace Trevillian, Dean, Industrial Management & Textile Science; Dr. Geraldine Labecki, Dean, College of Nursing; Dr. Henry Vogel, Dean, College of Physical, Mathematical and Biological Sciences; Dr. Jess Jones, Director of Research Instruction, College of Agricultural Sciences; Dr. Lyle Wilcox, Dean, College of Engineering; Dr. R.W. Moorman, Head, Engineering Mechanics; Dr. Bruce Yandle, Assistant Professor, Dept. of Economics; Dr. Edwin Stearns, Head, Dept. of Textiles; and Dr. Clinton Whitehurst, Head, Dept. of Industrial Management.

Also, Dr. Arline Duvall, Associate Professor, College of Nursing; Dr. Samuel Hulbert, Associate Dean for Engineering Research and Interdisciplinary Studies; Dr. Herbert Brantley, Associate Dean, College of Forest and Recreation Resources; Dr. William Epps, Head, Dept. of Plant Pathology and Physiology; Dr. Villard Griffin, Associate Professor, Dept. of Chemistry and Geology; Dr. Robert Hatcher, Associate Professor, Dept. of Chemistry and Geology; Dr. Joel Brawley, Professor, Mathematical Sciences; Dr. Richard Calhoun, Professor, English Dept.; and Dr. James Matthews, Associate Professor, Elementary and Secondary Education.

Outstanding Educators of America is an annual awards program honoring distinguished men and women for their exceptional service, achievements, and leadership in the field of education.

Nominations for the program are made by the officials of colleges and universities including presidents, deans and department heads. Their selection guidelines include an educator's talents in the classroom, contributions to research, administrative abilities, civic service and professional recognition.

JAMES F. BYRNES AWARD ESTABLISHED AT CLEMSON

The first presentation of the newly-established James F. Byrnes American Government Award at Clemson University was made to Ben Anderson of Edgefield during Honors and Awards Day activities April 11.

The award is made possible by the income from a $5,000 gift to the Clemson University Foundation from Mr. and Mrs. G. Cameron Todd of Columbia.

Mrs. Maude Byrnes, widow of the famous American statesman, presented the award which honors the life and contributions of her husband to his state and nation.

The award will be given each year to an outstanding graduating Clemson senior in political science who has concentrated his studies in the area of American government. The presentation included an engraved cup and cash award.

WILCOX NAMED DEAN OF ENGINEERING Continued from page 1

He was promoted to professor in 1969 and became Associate Dean for Professional Studies in the College of Engineering in 1970.

"Throughout his various assignments with the University," President Edwards said, "Dr. Wilcox has demonstrated an exceptional talent for administration and has extensive experience in teaching and research.

"Although interested in graduate level teaching, Dr. Wilcox has displayed an unusual talent in developing innovative undergraduate teaching techniques," Edwards said.

The new Dean has contributed significantly to research in the areas of computer science, electrical and mechanical engineering, and has been involved extensively with directing graduate studies in biomedical research.

Edwards said that during Dr. Rich's term of more than 11 years as Dean, engineering education at Clemson made phenomenal strides and is recognized today as one of the outstanding colleges in the field of engineering.

"We are confident that under Dr. Wilcox's leadership, Clemson will continue to be a pace-setter in engineering education," Edwards said.

CHEMISTRY

Recent publication of F. B. Brown (Assoc Prof), "Barriers to Linearity in Triatomic Molecules II. Comparison of Rectilinear and Curvilinear Models and Determination of the Barriers in Some Electronic States of Hydrogen Sulfide, Water and Sulfur Dioxide." J. Chem. Phys., 58, 827 (1973).

V. A. Fishman (former Grad Stu) and J. F. Geldard (Assoc Prof), "Absolute Configuration of Coordination Compounds I. Nickel (II) and Zinc (II) Complexes of PAPY," Inorg. Chem., 12 667 (1973).

CIVIL ENGINEERING

Subhash C. Anand (Assoc Prof) has a paper published in the March issue of the Journal of the Structural Division of the American Society of Civil Engineers. The paper is entitled, "Prestressed Composite Steel Beam Design" and is co-authored by Ahmed Talesstchi, a former graduate student at IIT, Chicago, Ill.

Herbert W. Busching (Assoc Prof and Hd) and John Kenelly (Prof and Hd, Math Sci) participated in an NSF sponsored Chautauqua-type short course in Operations Research at Clark College in Atlanta, Ga., on Mar. 5-6.

COLLEGE OF ARCHITECTURE

Sam Wang (Assoc Prof) was elected to the Board of Directors of the Society for Photographic Education at the National Conference held at Abiquiu and Albuquerque, Mar. 21-25.

Jack L. Clark (Assoc Prof) and Clarence Addison (Instr), department of Building Science, represented the College of Architecture at the "Conference on Computer Graphics" held at the Regency Hyatt House in Atlanta, Mar. 13-15.

Robert L. Chartier (Instr) and graduate assistants of the Health Care Facilities Planning and Design Studio participated in the "Seminar on Hospital Critical Care Areas" in which emergency services and critical care were of primary concern. The seminar was Mar. 8-9 in Tampa, Fla. and co-sponsored by Health Services and Mental Health Administration (HEW) and several Florida agencies and associations concerned in this area of health care.

James E. Dalton (Assoc Prof and Asst to the Dean) participated in the American Collegiate Schools of Architecture national conference held in Yosemit National Park, Mar. 19-23. Professor Dalton participated on panels discussing building technology in architectural education, the relationship of architectural research to the educational programs and architectural curricula.

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

Wallace D. Trevillian (Dean) delivered the keynote address to the joint meeting of the National Council for Textile Education and the Educational Committee of the American Textile Manufacturers Institute at N. C. State University, Raleigh, N. C., Mar. 15.

ELEMENTARY AND SECONDARY EDUCATION

William W. Pennscott (Assoc Prof), Teryle W. Carpenter (Instr) and Martha Carter (Head Resident, Young Hall) were presenters of a program entitled, "The Role of the Counselor in a College Level Developmental Reading Program," at the South Carolina Personnel and Guidance Association Convention in Columbia, Mar. 16-17.

ENGINEERING MECHANICS

Sea Grant Committee: Dr. Edwin B. Joseph (State Sea Grant Coordinator) announced that Dr. Robert Ackman of the Fisheries Research Board of Canada will present two seminars in the Charleston area:

April 26 - S. C. Marine Resources Center on the subject of "Lipid Biochemistry Research at the Marine Fisheries Lab of Canada."

April 27 - S. C. Medical University on the subject of "Biochemistry of Marine Organisms."

Specific room locations and times of these talks will be available at a later date from Paul B. Zielinski (Assoc Prof), Sea Grant Committee Chairman at Clemson. All who are interested are invited to attend.

Paul B. Zielinski (Assoc Prof) presented a talk on "The Vortex Chamber as a Grit Removal Device for Water Treatment," (W.R.R.I. Report 30, Clemson University) as an invited participant to an American Public Works Association sponsored research meeting on the subject of Vortex Grit Chamber Studies. The meeting was held on Mar. 22 at the LaSalle Hydraulics Laboratory at Montreal, Canada.

ENGINEERING RESEARCH

S. F. Hulbert (Assoc Dean) presented a three-day lecture series on "The Design of Orthopedic Appliances" to the medical faculty at the University of Bologna, Bologna, Italy, Feb. 28-Mar. 3. Dr. Hulbert was awarded the Franciscus Delitala medal by the Istituto Ortopedico Rizzoli and the Societa Italiana di Ortopedia e Traumatologia medal and the Franciscus Delitala medal by the Bologna Medical Society.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

T. R. Adkins, Jr. (Prof) attended a meeting of the ESA Committee on Professional Training, Standards and Status in Louisville, Ky. on Mar. 28-29.

Harold A. Loyacano, Jr. (Asst Prof) visited Auburn University and examined the fish collection on Mar. 19. From there he went to New Orleans, La. (Tulane University) and examined the fish collection there, Mar. 20-25.

S. B. Hays (Prof and Hd), Paul M. Horton (Grad Res Asst), and John Bass (Grad Res Asst) attended the 1973 Annual Imported Fire Ant Research Conference in New Orleans, La., Mar. 11-15. They gave a report on the research conducted in South Carolina.

ENVIRONMENTAL SYSTEMS ENGINEERING

T. M. Keinath (Assoc Prof) and R. P. Carnahan (Grad Stu) will present a paper entitled "Competitive Adsorption from Heterogeneous Aqueous Solutions onto Activated Carbon" at the 165th National Meeting of the Americal Chemical Society which was held in Dallas, Apr. 8-13.

John H. Austin (Prof) presented a paper entitled "Operator Training in South Carolina" to the annual meeting of the Southeastern section of the American Water Works Association in Charleston on Apr. 3. Dr. Austin served on the team for the Engineering Council of Professional Development which evaluated the College of Engineering of Penn State University, Apr. 9-10. Dr. Austin will present a paper entitled "Training for On-the-Job Behavior at the thirty-eighth annual conference of the Illinois Association of Water Pollution Control Operators in Springfield, Ill. on Apr. 17.

B. C. Dysart III (Assoc Prof) participated in a workshop sponsored by the Environmental Protection Agency and the Water Pollution Control Federation. The topic of the workshop held in Atlanta Mar. 2 was the 1972 Federal Water Pollution Control Act Amendments. Dr. Dysart was a speaker on the Management and Planning Panel.

GEOLOGY

Villard S. Griffin (Assoc Prof) presented an invitational paper, "A Tectonic Interpretation of the Piedmont Along the South Carolina-Georgia Border," at the annual meeting of the Northeastern Section of the Geological Society of America in Allentown, Pa., Mar. 23.

GEOLOGY (Continued)

Papers presented at the 46th annual meeting of the South Carolina Academy of Sciences, Mar. 29-31, Columbia were:

G. M. Haselton (Assoc Prof), "Some Geologic Aspects of Richmond Gulf-East Hudson Bay-Canada."

P. K. Birkhead (Assoc Prof), "Significance of Some Flinty Crush Rock Occurrences in Northwest South Carolina."

G. M. Haselton (Assoc Prof) presided at a session on Georgraph and Geology.

HISTORY

J. L. Arbena (Asst Prof) presented "Political Development: A Literature in Search of a Theory," before the South Carolina Political Science Association, Rock Hill, Mar. 31.

H. D. Adams (Asst Prof) participated as a critic in the Southeastern Regional Conference of the Association for Asian Studies, Boone, N. C., Jan. 25-26.

HORTICULTURE

J. R. Haun (Assoc Prof) recently published a paper entitled "Visual Quantification of Wheat Development" in Agronomy Journal 65:116-120. Dr. Haun is working on a research contract funded by the Federal Government for the current year in the amount of $20,807 to develop formulae for predicting yields from weather and environmental data at remote locations. This contract brings the total funding to date for this program to $142,028.

INDUSTRIAL EDUCATION

3M grants $1000 worth of supplies to the graphic arts program in the department of Industrial Education. Clemson is one of only two institutions throughout the Southeast to receive special assistance from the 3M company as a part of a national program to support those institutions making major contribution to graphic arts education and training. The Clemson program has been recognized by industrial groups in this region for its work in curriculum development and education related research. Particular attention is being focused on current activities involving the development of self instructional programs. This may be the first vocational subject area to rely nearly totally on an individualized, self paced learning system.

INDUSTRIAL EDUCATION (Continued)

On Mar. 22, J. Page Crouch (Assoc Prof) and David W. Dailey (Grad Stu) presented the program at the monthly meeting of the Atlanta Cold Type Association. The program consisted of a multi-media slide presentation covering progress made in Graphic Arts research and Curriculum Development for State Vocational high schools.

Mar. 15-17, the department of Industrial Education was represented at Graphic Arts '73 in Charlotte, N. C. by the Clemson Graphic Arts Society (CGAS). Graphic Arts '73 is a bi-annual trade show sponsored by the Printing Industry of the Carolinas.

INDUSTRIAL MANAGEMENT

Frank Himsworth (Prof) and Evans A. LaRoche (Prof) presented talks at the Sixth Annual all-day Conference of the Palmetto Section, American Society for Quality Control, held Mar. 17 in Greenville.

MATHEMATICAL SCIENCES

Joel V. Brawley (Prof) has had the following articles published recently: "Equivalence Classes of Linear Mappings with Applications to Algebraic Cryptography I," Duke Math. J. 39:121, (1972) with Jack Levine. "Equivalence Classes of Linear Mappings with Applications to Algebraic Cryptography II," Duke Math. J. 39:133, (1973), with Jack Levine. "Equivalence Classes of Involutory Mappings," Duke Math. J. 39:211, (1972), with Jack Levine.

Alan S. Cover (Assoc Prof) has had the following article published recently: "Generalized Continuations," Pacific Journal of Mathematics, Vol. 42 (1972) p. 589.

John D. Fulton (Assoc Prof) has had the following articles published recently: "Characterization and Enumeration of Linear Classes of Involutions over a Finite Field," Linear Algebra and its Applications, Vol. 6 (1973), p. 119. "Linear Classes of Involutions over Fields of Characteristic Two," Linear Algebra and its Applications, Vol. 6 (1973), p. 129.

John K. Luedeman (Assoc Prof) has had the following article published recently: "The Σ-socle of a Module," Bull. Soc. Math. de Begique, Vol. 24 (1972) p. 257.

MECHANICAL ENGINEERING

M. W. Dixon (Asst Prof) has received a National Science Foundation Research Initiation Grant of $17,000 for research in the area of Kinematics. The grant covers a period from April 1, 1973 to March 31, 1975. Dr. Dixon has been chosen as an Engineering Design Fellow for the 1973 NASA-ASEE program in Engineering Systems Design at Marshall Space Flight Center, Huntsville, Ala.

MICROBIOLOGY

The following papers were presented at the Spring Meeting of the South Carolina Branch of the American Society for Microbiology held at Furman University, Greenville, S. C., on March 9:

"Survival and Growth of Clostridium perfringens Strain B.P6K During Fermentation of Turkey Roll with Pediococcus cerevisiae," by H. W. Findley, Jr. (Grad Stu), J. C. Acton (Asst Prof of Fd Sci) and M. G. Johnson (Asst Prof of Fd Sci and Micro).

"Studies on Population Levels of Methanogenic Organisms in Fresh-Water Sediments," by M. J. B. Paynter (Assoc Prof and Head) and G. E. Richardson (former Grad Stu).

"Delayed Hypersensitivity and Serum Antibody Production to Hapten-Proteins in Guinea Pigs," by Paul Ko (Grad Stu) and R. K. Guthrie (Prof and Assoc Dean).

"Exploration of the Relationship of Increased Susceptibility to Histamine and Anaphylaxis in the Pertussis Vaccinated Mouse," by J. K. Farrington (Grad Stu) and R. K. Guthrie (Prof and Assoc Dean).

"Antibody Formation in Rabbits Exposed to High Altitude," by R. K. Guthrie (Prof and Assoc Dean) and Sheryl A. Lindsey (former Grad Stu).

"Behaviour of Staphylococcus Aureus S-6 Grown in Competition with Pediococcus cerevisiae and Lactobacillus plantarum in Broth and in Summer Sausage," by Adelle W. Stewart (Grad Stu), Linda J. Hogarth (SSTP participant), M. Brown (Undergrad Stu), J. C. Acton (Asst Prof Fd Sci) and M. G. Johnson (Asst Prof Fd Sci and Micro).

Mrs. Adelle Stewart presented this paper and she received the annual award of the South Carolina Branch of the American Society for Microbiology for the best student presentation.

MICROBIOLOGY (Continued)

J. H. Bond (Assoc Prof) presided over the meeting and F. M. DeWork (Belle Baruch Fellow) presided over one of the sessions.

PHYSICS & ASTRONOMY

Beverly B. Bookmyer (Assoc Prof) has been granted use of the observing facilities at the Cerro Tololo Inter-American Observatory in Chile, South America from June 20 to July 9. Dr. Bookmyer plans to obtain photoelectric measurements of the eclipsing binary systems V 566 Ophiuchi and ε Coronae Australis.

P. B. Burt (Assoc Prof) and W. S. Chervenak (former Grad Stu) have published a paper entitled "Remarks on A Self Consistent Fields Theory of Extra Strong Interactions" in Czechoslovak Journal of Physics B 23, February, 1973.

A. L. Laskar (Assoc Prof) presented a paper entitled "New Models for Cation Diffusion in Silver Halides" at the South Carolina Academy of Science in Columbia.

R. L. Chaplin (Prof) presented a paper entitled "Momentum and Mass Transport in Crystal" at the South Carolina Academy of Science in Columbia.

R. L. Chaplin (Prof) visited Georgia State University in Atlanta on April 2 and presented a talk on "Point Defects Studies in Metals."

CALENDAR OF CAMPUS EVENTS

April 15	Sun.		Baseball at Virginia.
April 15- May 7	Sun.- Mon.		Architecture Exhibit, Lee Hall Gallery - "The Television."
April 15- April 19	Sun.- Thurs.		The Fifth International Symposium on Biomaterials entitled "Prostheses and Tissue: The Interface Problem" will be held on campus (College of Engineering)
April 15	Sun.		Student Union (CSU) retreat for current & new committee members, "Y" Beach.
April 15	Sun.		CSU Climbing Trip (starts Fri., April 13).
April 15	Sun.	8:00 p.m.	CSU Fine Arts Film, "The Seventh Seal," Holtzendorff Hall,
April 16	Mon.	8:00 p.m.	The Fallacies of Hope - room 200, Hardin Hall.
April 16	Mon.	8:00 p.m.	Spanish Feature Film (English sub-titles) - Daniel Theatre.
April 16	Mon.	8:00 p.m.	Chamber Music Series 1972-73 Season - Marilyn Austin, flute; Diane Mullins, soprano - Daniel Hall Aud. - open to public, free.
April 16- April 18	Mon.- Wed.		CSU movie, "Last of the Red Hot Lovers."
April 17	Tues.		Clemson Area Continuing Education Classes.
April 17	Tues.	4:00 and 8:00 p.m.	Grand Illusion - History Film Series - Daniel Aud.
April 17	Tues.		Baseball at Georgia Tech.
April 18- April 21	Wed. Sat.		Forensic Union National DSR-TKA Conference at the University of Illinois.
April 18	Wed.		Student Union(CSU) Awards Banquet.
April 19	Thurs.	8:00 p.m.	Heroic Materialism - room 200, Hardin Hall.
April 19- April 22	Thurs.- Sun.		ACC Baseball Tournament.
April 19- April 21	Thurs.- Sat.		CSU Movie, "Conquest of the Plant of the Apes."
April 19- April 21	Thurs.- Sat.		Clemson Players - "Dames at Sea," Daniel Hall Aud. open to the public, free.

CALENDAR OF CAMPUS EVENTS Continued

April 19	Thurs.		CU Speakers Bureau - Senator Fred Harris.
April 20- April 21	Fri.- Sat.		CSU Coffeehouse at "The Gutter."
April 23	Mon.		Baseball - Georgia.
April 23- April 25	Mon.- Wed.		CSU movie, "The Love Machine."
April 24	Tues.		Clemson Area Continuing Education Classes.
April 24	Tues.		Baseball at Georgia Tech.
April 24- April 25	Tues.- Wed.		"Motivating the Human Industrial Organization: The application of a Behavioral Systems Approach" is a two-day Seminar sponsored by the Professional Development Office in the College of IM&TS. Dr. Leonard Berger, Asst. Prof of Psychology is the course chairman. He will be assisted by Philip J. Wadsworth, Instructor in Sociology.
April 24	Tues.	9:00 p.m.	"Black Genesis," a one-man show on black history starring Mel Winkler, Tillman Hall, free -- sponsored by Student Union.
April 26- April 27	Thurs.- Fri.		Baseball - Florida State.
April 26- April 28	Thurs.- Sat.		CSU Movie, "Bananas."
April 27	Fri.		May graduates turn in Alumni Questionnaire and pick up gift at Alumni Center.
April 28	Sat.		Graduate Record Examination.
April 28	Sat.		Baseball - USC at Spartanburg.
April 28	Sat.		Dental Aptitude Test.
April 29	Sun.	8:00 p.m.	CSU Fine Arts Film, "King Kong," Holtzendorff Hall.
April 30	Mon.		Examinations begin.
April 30- May 3	Mon.- Thurs.		CSU Movie, "Box Car Bertha."

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 18 May 1, 1973

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA
MAY 2 1973

GIFTS AND GRANTS SUMMARY: $1,043,000 RECEIVED IN PAST SIX MONTHS

Clemson University has received more than $1,043,000 in research and educational grants, contracts, equipment gifts and funds for scholarships during the past six months.

The largest single award was $648,006 in special digital computer equipment called "Trice," from the National Aeronautics and Space Administration (NASA). The unit on loan indefinitely to Clemson, will be used for research and undergraduate teaching in computer engineering.

NASA also gave a $20,058 research grant to the mechanical engineering department to continue development of procedures to minimize weight of aircraft structures and still meet specified strength, stiffness and dynamic characteristics. (Continued on page 2.)

U.S. Sen. Ernest F. Hollings was at Clemson April 19. He spoke on the "Future of the National Democratic Party," the seventh in a series of public affairs forums sponsored this semester by Clemson's political science department and College of Liberal Arts. With Senator Hollings and his wife are Dr. Charles Dunn, chairman for the forum, and President R.C. Edwards.

GIFTS AND GRANTS SUMMARY Continued

Other awards include:

-- $128,107 to the College of Engineering, including an $84,963 contract from Greenwood Mills for design studies for textile process control instrumentation; $13,584, U.S. Army Medical Research and Development Command, for environmental studies concerning removal of toxic agents from wastewater; and $20,000 worth of computer equipment from Sangamo Electric Co., West Union.

-- $99,550, National Science Foundation (NSF), for three projects: a civil engineering study for predicting strength and fatigue-strength of railroad wheels, and ball and roller bearings ($56,300); support for five NSF graduate student traineeships ($26,250); and a mechanical engineering study to understand and improve efficiency of motion of various complex machine parts ($17,000).

-- $40,200 for scholarships and fellowships from corporations, private firms, foundations, professional societies, and individuals.

-- $23,000 to the department of mathematical sciences: a $20,000 contract, U.S. Office of Naval Research, to continue a project in applied statistical analysis, and $3,000 from Southern Bell Telephone and Telegraph Co., Columbia, to extend Clemson's S. Maner Martin Professorship in Mathematics.

-- $19,850 to the College of Industrial Management and Textile Science, including $12,000, S.C. Department of Corrections, to develop occupational safety and health training programs for the S.C. Correctional Institutions, and $6,500 in unrestricted grants.

-- $15,500 in unrestricted grants to the chemical engineering department from four major corporations and a foundation.

-- $7,648 to the division of interdisciplinary studies (College of Engineering), including $5,373 in surgical equipment donations and $2,275 worth of heart valves from six companies for use in biomaterials research.

-- $41,170 from several sources for various programs: $13,186 from S.C. Commission on Higher Education for a summer institute for 40 reading teachers; $12,410 in general unrestricted grants to the university; $4,000, Syntex Research of Palo Alto, Calif., for hormone studies in cattle reproduction; a $3,423 cultatiller given to the agricultural engineering department by Wood Bros., Inc., of Vicksburg, Miss.; and $2,060 worth of contemporary graphics given by private donors to the Rudolph Lee Gallery, College of Architecture.

EDUCATIONAL COUNCIL MINUTES, APRIL 2, 1973

Present: Robert C. Edwards, presiding; Walter T. Cox, Stanley G. Nicholas, Melford A. Wilson, H. Morris Cox, J. W. Gordon Gourlay, Claud B. Green, Luther P. Anderson, Geraldine Labecki, Harold F. Landrith, Melvin C. Long, Harlan E. McClure, W. H. Davis McGregor, L. C. Wilcox, Ernest B. Rogers, A. E. Schwartz, W. D. Trevillian, K. N. Vickery, Henry E. Vogel, E. N. Tyndall, S. M. Willis and A. W. Rigsby, Secretary.

1. Minutes

The minutes of the meeting of March 5, 1973 were approved as submitted.

2. Curriculum Changes

Statement and Recommendation: The Dean of the University recommends additions, deletions and changes to the curricula, effective when designated on the appropriate Request for Approval forms as follows:

I. COLLEGE OF AGRICULTURAL SCIENCES

(A) New Graduate Courses

AgE 633	Design Criteria for Plant and Animal Environment (also listed under College of Engr.)	3 cr. (3 and 0)
FdSc 601	Food Chemistry I (Replaces FdSc 613)	4 cr. (3 and 3)
FdSc 602	Food Chemistry II (Replaces FdSc 616)	4 cr. (3 and 3)
FdSc 622	Quality Assurance and Sensory Evalution (Replaces FdSc 612)	2 cr. (2 and 0)
FdSc 624	Quality Assurance and Sensory Eval. Lab (Replaces FdSc 614)	1 cr. (0 and 3)
Hort 670	Horticultural Therapy	3 cr. (3 and 0)
Nutr 701	Therapeutic Nutrition	3 cr. (3 and 0)
Nutr 702	Public Health Nutrition	3 cr. (3 and 0)
Nutr 703	Nutrition Education	3 cr. (3 and 0)
Nutr 704	Feeding Methods	3 cr. (3 and 0)
Nutr 705	Field Training and Nutrition	6 cr. (6 and 0)

EDUCATIONAL COUNCIL MINUTES, APRIL 2, 1973 (Continued)

II. COLLEGE OF EDUCATION

(A) New Undergraduate Courses

Ed 469	Characteristics of Children with Emotional Handicaps	3 cr. (3 and 0)
Ed 470	Characteristics of Children with Learning Disabilities	3 cr. (3 and 0)
Ed 474	Educational Procedures for Children with Emotional Handicaps	3 cr. (3 and 0)
Ed 475	Educational Procedures for Children with Learning Disabilities	3 cr. (3 and 0)

(B) New Graduate Courses

Ed 659	Fundamentals of Basic Reading	3 cr. (3 and 0)
Ed 661	Teaching Reading in the Elementary School	3 cr. (1 and 4)

III. COLLEGE OF ENGINEERING

(A) New Graduate Course

AgE 633	Design Criteria for Plant and Animal Environment (also listed under College of Agricultural Sciences)	3 cr. (3 and 0)

IV. COLLEGE OF FOREST AND RECREATION RESOURCES

(A) New Undergraduate Courses

RPA 150	Beginning Swimming	1 cr. (0 and 3)
RPA 151	Diving	1 cr. (0 and 3)
RPA 152	Sailing	1 cr. (0 and 3)
RPA 153	Canoeing	1 cr. (0 and 3)
RPA 160	Beginning Tennis	1 cr. (0 and 3)
RPA 161	Beginning Badminton	1 cr. (0 and 3)
RPA 162	Handball	1 cr. (0 and 3)
RPA 163	Racquetball	1 cr. (0 and 3)
RPA 170	Beginning Golf	1 cr. (0 and 3)
RPA 180	Adaptive Exercise	1 cr. (0 and 3)
RPA 260	Intermediate-Advanced Tennis	1 cr. (0 and 3)

(B) Establishment of an elective program of recreational sports.

EDUCATIONAL COUNCIL MINUTES, APRIL 2, 1973 (Continued)

V. COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

(A) New Undergraduate Course

Econ 203	Consumer Economics	2 cr. (2 and 0)

(B) Change in Prerequisite Requirements - Undergraduate

IM 299	Computer Programming I	1 cr. (0 and 3)
IM 402	Operations Planning and Control	3 cr. (3 and 0)

(C) Undergraduate Courses deleted

IM 100	Introduction to Industrial Management	0 cr. (1 and 0)
IM 409	Management Simulation	0-1 cr. (0 and 3)

(D) Curricula

(1) Bachelor of Science Degree in Economics

Freshman Year

First Semester			Second Semester		
Engl. 101, Eng. Comp.	3	(3,0)	Engl. 102, Eng. Comp.	3	(3,0)
Hist. 171, History of Civilization	3	(3,0)	Hist. 172, or 173 History of Civilization	3	(3,0)
Math 101, Math Anal. I[1]	3	(3,0)	Math 102, Math Anal. II[1]	3	(3,0)
Acct. 201, Prin. of Acct.	3	(3,0)	Acct. 202, Prin. of Acct.	3	(3,0)
Natural Science*	3-4		Natural Science*	3-4	
Elective	1		Elective	1	
	16-17			16-17	

Sophomore Year

Econ 201, Prin. of Econ.	3	(3,0)	Econ 202, Prin. of Econ.	3	(3,0)
Literature Requirement[2]	3	(3,0)	Literature Requirement	3	(3,0)
Social Science Elective	3		Social Science Elective	3	
Math 106, Cal. of One Var.	4	(5,0)	IM 306, Corp. Finance	3	(3,0)
Elective	1		Elective	1	
Elective	3		Elective	3	
	17			16	

*Excluding Physical Science 101 & 102

EDUCATIONAL COUNCIL MINUTES, APRIL 2, 1973 (Continued)

Junior Year

Econ 314, Inter. Econ. Theory	3		Econ 407, Nat. Income & Emp. Anal.	3	(3,0)
Econ 302, Money & Banking	3		Major	3	
IM 322, Legal Environ. of Business	3		Math 203, Ele. Stat. Inference or		
Comp. Sci. 205, Computer Variables Programming in PL/1	3	(2.3)	Math 301, Stat. Theory Methods I	3	(3,0)
Option	3		Option	3	
	15		Elective	3	
				15	

Senior Year

Major	6	Major	6
Option	6	Option	3-5
Approved Electives	6	Approved Electives	6-10
	18		17-19

132 Semester Hours

Social Science electives should be chosen from History 101, 102, 301, Political Science 101, 201, 301, Psych. 201, 302, Soc. 201, 202, 324, 351.

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[1]Math 101, 102, 106, may be replaced by Math 106, 108, 206.

Courses acceptable for major credit include Econ. 301, 302, 314, 407 and all other 300 and 400 level economics courses, Ag. Econ. 456, History 305, Mgt. Science 311, IM 404, 405, 406, M.E. 484.

[2]Courses to be selected from English 203, 204, 205, 206, 207, 208.

Options. Those available include Math-Statistics, Computer Science, Management, Textile Science, Accounting, Social Sciences, Urban Studies, Environmental Studies, and Public Administration.

Math-Statistics Option

(Students electing this option should elect Math 301 in place of Math 203)	
Math 205, Calculus and Linear Algebra	4
Math 206, Calculus of Several Variables	4
Math 405, Statistical Theory and Methods II	3 (3,0)
Math 452, Linear Programming	3 (3,0)
Math 411, Linear Algebra	3 (3,0)
	17

EDUCATIONAL COUNCIL MINUTES, APRIL 2, 1973 (Continued)

Computer Science Option

Comp. Sc. 311, Computer Organization and Programming	3 (3,0)
Math 208, Engineering Mathematics I	4 (5,0)
Comp. Sc. 409, Intro. to Numerical Analysis I	3 (3,0)
Comp. Sc. 410, Intro. to Numerical Analysis II	3 (3,0)
Mgt. Sc. 311, Introduction to Econometrics	3 (3,0)
	16

Management Science Option

Mgt. Sc. 311, Introduction to Econometrics	3 (3,0)
Mgt. Sc. 314, Management Science I	3 (3,0)
Mgt. Sc. 414, Statistical Analysis	3 (3,0)
IM 404, Managerial Economics	3 (3,0)
Acct. 303, Cost Accounting or Acct. 305, Income Taxation or IM 312, Commercial Law	3 (3,0)
	15

Textile Science Option

Text. 122, Introduction to Textiles	1 (1,0)
Text. 305, Yarn Structure I	3 (2,3)
Text. 306, Yarn Structure II	3 (2,3)
Text. 313, Fabric Structure I	3 (2,3)
Text. 314, Fabric Structure II	3 (2,3)
Text. 421, Textile Costing I	3 (2,3)
	16

Accounting Option

Acct. 301, Intermediate Accounting	3
Acct. 302, Intermediate Accounting	3
IM 312, Commercial Law	3 (3,0)
Acct. 303, Cost Accounting and Acct. 305, Income Taxation or Acct. 411, Advanced Accounting and Acct. 415, Auditing	6
	15

EDUCATIONAL COUNCIL MINUTES, APRIL 2, 1973 (Continued)

Social Science Option[3]

History 306, American Economic Development	3 (3,0)
Pol. Sci. 321, General Public Administration	
or	
Pol. Sci. 365, International Politics	3 (3,0)
Soc. 351, Industrial Sociology	3 (3,0)
Electives at 300 and 400 level in History, Political Science, Psychology and Sociology	6
	15

Urban Studies Option

Soc. 331, Urban Sociology	3 (3,0)
Soc. 206, Intro. to Methods of Soc. Research	3 (3,0)
CRP 411, Intro. to City and Regional Planning	3 (3,0)
CRP 412, City and Regional Planning Theory	3 (3,0)
CRP 421, Urban Social Structure	3 (3,0)
	15

Environmental Studies Option

Ag. Econ. 357, Natural Resource Economics	3 (3,0)
Ag. Econ. 403, Land Economics	3 (3,0)
En. II. 471, Man and His Environment	2 (2,0)
ESE 401, Environmental Engineering	3 (3,0)
WRE 450, Water Resources Engineering	3 (3,0)
Bot 145, Environmental Dynamics	2 (2,0)
	16

Public Administration Option

(Students in this option must take Pol. Sci. 101 and 201 as social science electives; Ec. 420 and 421 in major)

Pol. Sci. 301, American Government and Political Parties	3 (3,0)
Pol. Sci. 302, State and Local Government	3 (3,0)
Pol. Sci. 321, General Public Administration	3 (3,0)
Pol. Sci. 341, Political Behavior	3 (2,3)
Pol. Sci. 423, Municipal Administration	3 (3,0)
	15

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[3]Students electing this option should take Pol. Sci. 101, 201, History 101 and 102, and Soc. 201 as prerequisites for required courses, counting toward the Social Science elective and free electives.

Additional options could be added or some of the proposed options deleted depending on experience with student demand.

EDUCATIONAL COUNCIL MINUTES, APRIL 2, 1973 (Continued)

(2) Accounting Curriculum

Freshman Year

Science	*	Elective Science	4	(3,3)	Science	*	Elective Science	4 (3,3)
Hist	173	Western Civ	3	(3,0)	Acct	202	Prin of Acct	3 (3,0)
Engl	101	English Comp	3	(3,0)	Engl	102	English Comp	3 (3,0)
Math	106	Anal Geom Cal I	4	(4,0)	Math	108	Cal & Lin Alg	4 (4,0)
Acct	201	Prin of Acct	3	(3,0)	Elective			3
			17					17

Sophomore Year

Acct	301	Intermediate Acct	3	(3,0)	Acct	302	Intermediate Acct	3 (3,0)
Econ	201	Prin of Econ	3	(3,0)	Econ	202	Prin of Econ	3 (3,0)
Soc	201	Intro to Soc	3	(3,0)	IM	201	Intro to IM	3 (3,0)
Math	207	Multidim Cal	3	(3,0)	Math	301	Stat Methods I	3 (3,0)
Engl	Lit	Requirement	3	(3,0)	Engl	Lit	Requirement	3 (3,0)
					Comp Sc	205	Elem Comp Prog	3 (3,0)
			15					18

Junior Year

Econ	314	Inter Econ Theory	3	(3,0)	Engl	304	Adv Comp	3 (3,0)
Acct	303	Cost Acct	3	(3,0)	Soc	351	Indus Soc	3 (3,0)
IM	312	Commercial Law	3	(3,0)	Mgt Sc	311	Econometrics	3 (3,0)
IM	306	Corporation Fin.	3	(3,0)	Acct	305	Income Taxation	3 (3,0)
Approved Elective			4		IM	313	Commercial Law	3 (3,0)
					Approved Elective			3
			16					18

Senior Year

Acct	410	Bud & Exec Cont	3	(3,0)	Engl	301	Public Speaking	3 (3,0)
Mgt Sc	414	Stat Analysis	3	(3,0)	Acct	415	Auditing	3 (3,0)
Acct	411	Advanced Acct	3	(3,0)	IM	415	Mgt Dec Making	3 (3,0)
Acct	405	Adv Fed Tax	3	(3,0)	IM	404	Managerial Econ	3 (3,0)
Approved Elective			3		Acct	407	Directed Research	1 (0,3)
					Approved Elective			3
			15					16

*Science elective includes any natural or physical science.

EDUCATIONAL COUNCIL MINUTES, APRIL 2, 1973 (Continued)

(3) Industrial Management Curriculum

Freshman Year

Chem	101	General Chem	4	(3,3)	Chem	102	General Chem	4 (3,3)
EG	103	Engr Com & Dsgn	3	(1,6)	Phys	122	Mech & Wave Phen	3 (3,0)
History	173	Western Civ	3	(3,0)	Engl	102	English Comp	3 (3,0)
Engl	101	English Comp	3	(3,0)	Math	108	Cal & Lin Alg	4 (4,0)
Math	106	Anal Geom Cal I	4	(4,0)	Elective			3
			17					17

Sophomore Year

Acct	201	Prin of Acct	3	(3,0)	Acct	202	Prin of Acct	3 (3,0)
Econ	201	Prin of Econ	3	(3,0)	Econ	202	Prin of Econ	3 (3,0)
Soc	201	Intro to Soc	3	(3,0)	IM	201	Intro to IM	3 (3,0)
Math	207	Multidim Cal	3	(3,0)	Comp Sc	205	Elem Comp Progr	3 (3,0)
Phys	221	Thermal & Elec Ph	3	(3,0)	Math	301	Stat Methods I	3 (3,0)
Phys	223	Engr Phys Lab	1	(0,3)	Elective			2 (2,0)
			16					17

Junior Year

Econ	314	Inter Econ Theory	3	(3,0)	IM	308	Marketing Strategy	3 (3,0)
IE	307	Survey of Engr	3	(3,0)	Soc	351	Indus Soc	3 (3,0)
Acct	303	Cost Acct	3	(3,0)	IM	304	Quality Control	3 (3,0)
IM	322	Legal Env of Bus	3	(3,0)	Mgt Sc	311	Econometrics	3 (3,0)
*Area Concentration			3		*Area Concentration or TE			3
or					Elective			2
Elective			3	(3,0)				
			18					17

Senior Year

Acct	410	Bud & Exec Cont	3	(3,0)	IM	402	Oper Plan & Cont	3 (3,0)
Mgt Sc	414	Stat Analysis	3	(3,0)	IM	404	Managerial Econ	3 (3,0)
Engl	304	Adv. Composition	3	(3,0)	IM	415	Mgt Dec Making	3 (3,0)
IM	408	Work Simp & Stand	3	(2,3)	IM	407/410	Directed Research	1 (1,0)
or IM	418	Man Info Systems			IM	499	Computer Pro II	1 (0,3)
*Area Concentration or TE			3		*Area Concentration or TE			3
					Elective			1
			15					15

*A student not selecting an area concentration may, with the approval of his advisor, select instead 9-12 credits from an approved technical elective list.

EDUCATIONAL COUNCIL MINUTES, APRIL 2, 1973 (Continued)

(4) Financial Management Curriculum

Freshman Year

Engl	101	English Comp	3 (3,0)	Engl	102	English Comp	3 (3,0)
Hist	173	Western Civ	3 (3,0)	Pol Sc	101	Intro to Pol Sc	3 (3,0)
Math*	101	Math Analysis I	3 (3,0)	Math*	102	Math Analysis II	3 (3,0)
Acct	201	Prin of Acct	3 (3,0)	Acct	202	Prin of Acct	3 (3,0)
IM	201	Intro to IM	3 (3,0)	Econ	201	Prin of Econ	3 (3,0)
Elective			1 (1,0)	Elective			1 (1,0)
			16				16

Sophomore Year

Engl	Lit	Requirement	3 (3,0)	Engl	Lit	Requirement	3 (3,0)
Soc	201	Introd Soc	3 (3,0)	Psych	201	General Psych	3 (3,0)
Math*	203	Elem Stat Infer	3 (3,0)	Comp Sc	205	Elem Comp Prog	3 (3,0)
Acct	301	Intermediate Acct	3 (3,0)	Acct	302	Intermediate Acct	3 (3,0)
Econ	202	Prin of Econ	3 (3,0)	Elective			3 (3,0)
Elective			1 (1,0)				
			16				15

Junior Year

IM	308	Marketing Strat	3 (3,0)	IM	306	Corp Finance	3 (3,0)
Soc	351	Indus Soc	3 (3,0)	IM	307	Personnel Mgt	3 (3,0)
IM	312	Commercial Law	3 (3,0)	IM	313	Commercial Law	3 (3,0)
Acct	303	Cost Acct	3 (3,0)	Acct	305	Income Taxation	3 (3,0)
Econ	306	Risk & Insurance	3 (3,0)	Econ	302	Money & Banking	3 (3,0)
Econ	314	Inter Econ Theory	3 (3,0)	Elective			3 (3,0)
			18				18

Senior Year

Engl	304	Adv Comp	3 (3,0)	Engl	301	Public Speaking	3 (3,0
IM	415	Mgt Dec Making	3 (3,0)	IM	409	Mgt Simulation	0 (0,3)
Econ	422	Monetary Theory	3 (3,0)	Econ	412	Internat Trade	3 (3,0)
Acct	410	Bud & Exec Contr	3 (3,0)	Acct	415	Auditing	3 (3,0)
Elective			6 (6,0)	Elective			6 (6,0)
			18				15

*Credits earned in Math 106 (4 cr.), 205 (4 cr.), 207 (3 cr.), 301 (3 cr.), and Management Science 414 (3 cr.) may be substituted toward Math 101, 102, 203, and eight elective credits. See class advisor.

EDUCATIONAL COUNCIL MINUTES, APRIL 2, 1973 (Continued)

(5) Administrative Management Curriculum

			Freshman Year				
Chem or	101	General Chem	4 (3,3)	Chem or	102	General Chem	4 (3,3)
Phy Sc	101	Phy Sc I	4 (3,2)	Phy Sc	102	Phy Sc II	4 (3,2)
Engl	101	English Comp	4 (3,0)	Engl	102	English Comp	4 (3,0)
Math	101	Math Analysis	3 (3,0)	Math	102	Math Analysis	3 (3,0)
Hist	173	Western Civ	3 (3,0)	Pol Sci	201	Intro to Pol Sc II	4 (3,0)
Pol Sci	101	Intro to Pol Sc	3 (3,0)	Elective			1
Elective			1	Elective			3
			17				17
			Sophomore Year				
Acct	201	Prin of Acct	3 (3,0)	Acct	202	Prin of Acct	3 (3,0)
Econ	201	Prin of Econ	3 (3,0)	Econ	202	Prin of Econ	3 (3,0)
Soc	201	Intro to Soc	3 (3,0)	Psych	201	Intro to Psych	3 (3,0)
Math	203	Elem Stat Infer	3 (3,0)	Soc	202	Social Problems	3 (3,0)
Engl	Literature Requirement		3 (3,0)	IM	201	Intro to Mgt	3 (3,0)
				Comp Sc	205	Elem Comp Prog	3 (3,0)
Elective			1				
			16				18
			Junior Year				
Acct	303	Cost Accounting	3 (3,0)	Soc	331	Urban Sociology	
IM	312	Comm Law I	3 (3,0)	or IM	307	Personnel Mgt.	3 (3,0)
IM	304	Quality Control	3 (3,0)	IM	313	Comm Law II	3 (3,0)
IM	308	Marketing Strat	3 (3,0)	MaSc	310	Intro to Mgt	3 (3,0)
Econ	301	Labor Econ	3 (3,0)	Pol Sci	321	Gen Public Adm	3 (3,0)
Elective			1	IM	306	Corporate Finance	3 (3,0)
				Elective			1
			16				16
			Senior Year				
Acct	410	Exec Budg & Con	3 (3,0)	MaSc	414	Statistical Anal	
Engl	304	Adv Composition	3 (3,0)	or IM	404	Managerial Econ	3 (3,0)
IM	402	Op Plan & Contr	3 (3,0)	IM	412	Marketing Anal	
IM	418	Mgt Info Sys		or IM	401	Quant Market Anal	3 (3,0)
or IM	405	Econ of Trans	3 (3,0)	IM	410/407	Dir Research	1 (1,0)
Elective			3	IM	415	Man Dec Making	3 (3,0)
				IM	499	Comp Pro II	1 (1,0)
				Elective			6
			15				17

EDUCATIONAL COUNCIL MINUTES, APRIL 2, 1973 (Continued)

VI. COLLEGE OF NURSING

(A) Change in Credit Hours - Undergraduate

Nurs 311	Nursing During Alterations in Life Patterns (Changed from 4 cr. (1 and 9)	5 cr. (2 and 9)
Nurs 312	Nursing of the Acutely and Chronically Distressed (Changed from 4 cr. (1 and 9)	5 cr. (2 and 9)

(B) Establishment of a Graduate Program in Family Health Nursing leading to the degree of Master of Science.

VII. COLLEGE OF PHYSICAL, MATHEMATICAL, AND BIOLOGICAL SCIENCES

(A) New Undergraduate Course

Phys 245	Energy Sources Available to Man	2 cr. (2 and 0)

(B) New Graduate Courses

Astr 612	Spherical Astronomy	3 cr. (3 and 0)
Astr 621	Introduction of Radio Astronomy	3 cr. (3 and 0)

(C) Change in Credits - Graduate

Zool 656	Parasitology (Changed from 3 cr. (2 and 3)	4 cr. (3 and 3)

Action: Approved.

A. W. Rigsby
Secretary

MINUTES OF THE FACULTY SENATE MEETING, MARCH 13, 1973

The meeting was called to order by President Rogers at 4:15 p.m. The Minutes were approved as circulated.

Advisory Committee was asked to meet at 4:00 p.m. Tuesday, March 27 in Conference Room of McAdams Hall.

President's Report

Board of Trustees

The Faculty Senate encourages good public relations with our professional peers throughout the State.

Dr. Claud Green, Dean of Undergraduate Studies has appointed a committee to study the entire university grading system.

Planning Council -- Address comments to Vice President Stan Nicholas' office concerning continuing education center or any other project. No decisions have been made as yet.

Plans for Performing Arts Building were discussed. Priorities are continually shifting. The question is still unclear as to the present plans for either the continuing education center or the Performing Arts Building.

A university-wide survey will be taken to see what use would be made of a continuing education center. Agriculture and Engineering are being surveyed at this time.

President Rogers wrote letter to President Edwards concerning Student Relations Committee. A description of purpose has not been printed in the Student Handbook. There is not any continuity from year to year. At the request of President Edwards, recommendations have been drawn up by a committee. It was presented to Dean Hurst for approval.

Condolences were expressed to the family of the late L. D. Holmes through President Edwards by President Rogers on behalf of the Senate. Mr. Holmes was a member of the University Board of Trustees.

Ron Dillon was asked to respond to the gift to the University presented by the Jordan family. Walt Castro was asked to respond to the gift presented by the Hunter family. Resolutions regarding these gifts will be presented at the April meeting of the Senate.

The National Dividend Seminar did not materialize due to lack of interest.

MINUTES OF THE FACULTY SENATE MEETING, MARCH 13, 1973 (Continued)

Committee Reports

Admissions and Scholarship

Professor J. C. Fanning made remarks regarding substitution for required courses where low enrollment problems prohibit the teaching of these courses; student options when instructors fail to sign drop cards; and status of pre-professional students who do not complete work for the baccalaureate degree at Clemson.

Professor Fanning then presented a resolution in response to Student Senate Bill No. B-73-21 entitled "Clemson University Honor System." The motion was made by Professor William Steirer that the resolution be tabled until various schools can be polled to see how other honor systems are being handled. Institutions should be polled where honor systems are in operation and also others where the system has been dropped. The motion to table the resolution was passed.

Welfare

Professor Bill West presented information on faculty evaluation. He then presented a resolution regarding the evaluation procedure. The motion was seconded.

RESOLUTION

Faculty Evaluation

The Faculty Senate passed a resolution at the October 12, 1971 meeting which requested "...that the department head present their staff a copy of the finished evaluation form each year and explain to each staff member evaluations that may be brought into question as unclear or unfair...." The resolution was forwarded to Dean Hurst but the minutes for the October 12, 1971 meeting were not printed in the Clemson Newsletter, and therefore didn't receive wide distribution.

Dean Hurst, acting on our resolution, appointed a committee to recommend a new faculty evaluation form. The committee appointed was listed in the January 1, 1972 Clemson Newsletter.

"There has been a need for some time to improve our faculty evaluation forms in such a manner that both faculty and administrators would be agreed that Clemson University was, indeed, using a form that would clearly accomplish its objectives.

To achieve this goal, Dr. Victor Hurst, Dean of the University, has appointed a committee to recommend a suitable faculty evaluation form. The committee consists of Dean Henry Vogel, Chairman; Professor Douglas W. Bradbury, Dean Herbert Brantley, Professor Claire O. Caskey, Dr. James B. Copeland, Professor Arline Duvall, Dr. W. Cecil Godley, Professor Vernon S. Hodges, Dr. Morris A. King, and Dr. Thomas B. Yandle."

MINUTES OF THE FACULTY SENATE MEETING, MARCH 13, 1973 (Continued)

The committee did meet on several occasions and out of their work a new faculty evaluation form was formulated. The new form was distributed to the Faculty Senate at the October, 1972 meeting, with a request to react to the form through the Senate President. The Faculty Senate was not asked to accept or reject the new evaluation form, and until the February meeting no great concern has been voiced by the Clemson Faculty Senate.

The Welfare Committee of the Faculty Senate, in response to the request of the Senate, has undertaken a review of the Faculty Evaluation Procedures. Our initial study has shown that:

1. The revised Faculty Evaluation Form did result from the cooperative work of administrators and faculty members.

2. The University's administrative officials are cognizant of the Senate's desires that the evaluations be discussed with each staff member.

3. The new evaluation form is not universally accepted as the best device for evaluating faculty performance.

The Welfare Committee therefore proposes that the Faculty Senate consider the following resolution.

WHEREAS, the Board of Trustees has directed the implementation of a program of annual evaluation of the Faculty, and

WHEREAS, there is an expressed desire that both faculty and administrators agree that the method of evaluation clearly accomplish its objectives, and

WHEREAS, the present method of evaluation grew out of cooperative efforts of a faculty and administration committee, be it

Resolved that the Faculty Senate encourages each faculty member to carefully review the present method of evaluating his performance as a faculty member, and to report positive or negative reactions to the Faculty Senate Welfare Committee, be it further

Resolved that since the Faculty Senate has not been asked to accept or reject the new evaluation form, that such action be taken before the 1974 evaluation of faculty is undertaken.

In the discussion that followed, it was pointed out that the present evaluation method is now being implemented although there have been indications of misunderstanding and dissatisfaction. One of the dissatisfactions concerned the lack of faculty input into the selection of the committee which designed the evaluation procedure. The motion carried.

Professor R. A. Rimkus then presented a resolution concerning the faculty evaluation form and the procedure for faculty evaluation.

MINUTES OF THE FACULTY SENATE MEETING, MARCH 13, 1973 (Continued)

The motion was seconded. Another motion was then introduced to send this resolution back to the Welfare committee for further study. The motion carried.

Professor West announced that United Parcel Service will begin a regular pick up at the Central Receiving Station at the end of next week.

Faculty Club

Professor Shannon reported that an informal organization is now planning for the establishment of a faculty club. Designs are being prepared. If any faculty wants to help, contact Professor Shannon.

New Business

Student Relations Committee Proposal was presented by Professor John Fulton. The motion was seconded and passed. Certain editorial changes were made.

Student Relations Committee

A Student Relations Committee, composed of the Vice President of the Faculty Senate, the Vice President of the Student Body, a representative from the Student Affairs Office, and four other members, two from the Faculty Senate and two students nominated by the Student Senate, shall be appointed in April of each year by the President of the University to hear academic grievances brought by students against faculty members and to attempt to resolve those grievances fairly and equitably on the basis of the prevailing rules and regulations of the University. The two Faculty Senate members and the two Student Senate members, other than Vice Presidents, shall hold two-year terms of office. The Committee members shall have their terms of service on the Committee staggered in such a way that at any given time the Committee shall have as members one student and one faculty member each in his second year of service on the Committee and two students and two faculty members each in his first year of service on the Committee. The Faculty Senator in his second year of service on the Committee shall be the Chairman of the Committee.

In order that the Committee may function continuously, the President of the University may appoint, if necessary, alternates to the Committee.

If the Committee can effect no satisfactory solution to a grievance, the Committee shall forward its findings with appropriate recommendations to the President of the University via the Vice President for Academic Affairs and the Vice President for Student Affairs.

The rules and procedures followed by the Committee shall be published in the University Student Handbook.

Rules and Procedures of the Student Relations Committee

1. A student may have his grievance against a faculty member brought before the Committee by presenting a written statement detailing the grievance to any member of the Committee.

2. The Committee member who received the grievance immediately will deliver the grievance to the Chairman of the Committee, who will appoint a subcommittee of three Committee members to investigate the grievance.

3. Three Committee members appointed by the Chairman will constitute the Subcommittee to Investigate the Grievance. Each Subcommittee will include at least one faculty member and at least one student member. One faculty Subcommittee member shall be appointed as Chairman of the Subcommittee.

4. The Subcommittee to Investigate the Grievance will attempt to gather all information pertinent to the grievance in separate meetings with the faculty member against whom the grievance was made, with his department head, if necessary, with his academic dean, if necessary, with the student making the grievance, and with other students who may give information concerning the grievance.

5. If at all possible the Subcommittee to Investigate the Grievance will attempt to shield the identity of a student making a grievance from all other parties involved in the grievance.

6. Likewise, the Student Relations Committee will attempt to shield the identities of all parties to a grievance from the Clemson University community and from the general public.

7. The Subcommittee to Investigate the Grievance will formulate and seek to obtain from all parties involved in the grievance approval for written findings and recommendations for solution to the grievance.

8. The Committee meeting in executive session will consider the grievance and the solution to the grievance posed by the Subcommittee to Investigate the Grievance.

9. If the Committee and all parties to the grievance approve the solution to the grievance posed by the Subcommitee to Investigate the Grievance, the matter of the grievance will be considered closed when the solution has been effected.

10. If the Committee disapproves the solution to the grievance posed by the Subcommittee to Investigate the Grievance, then the Subcommittee to Investigate the Grievance with the advice of the Committee should pose and seek to obtain from all parties to the grievance approval for another solution to the grievance.

11. If the Subcommittee to Investigate the Grievance cannot obtain from all parties to the grievance approval for any solution to the grievance acceptable by the Committee, the Committee will provide opportunity for a Hearing

on the Grievance at a time convenient to all parties to the grievance. Either party to the grievance may petition for a Hearing on the Grievance.

12. The Hearing on the Grievance will be informal. Minutes will be recorded by a stenographer. All parties to the grievance and all who can supply information pertinent to the grievance should be present at the Hearing and should be given ample opportunity to be heard.

13. Upon conclusion of the Hearing, the Committee, meeting in executive session, shall seek to reach unanimous agreement among those Committee members present to a solution to the grievance. If the Chairman can persuade all parties to the grievance to accept the unanimous Committee solution to the grievance, the matter of the grievance will be considered closed when the solution is effected.

14. If, after conclusion of the Hearing on the Grievance, the Chairman cannot obtain from all parties to the grievance approval for the solution to the grievance decided unanimously by the Committee members present at the Hearing, the grievance will be referred to the President of the University via the Vice President for Academic Affairs and the Vice President for Student Affairs with the Committee solution as the recommended solution to the grievance.

15. If, after the Hearing on the Grievance, the Committee cannot reach unanimous agreement on a solution to the grievance, the grievance will be referred to the President of the University with a recommended solution to the grievance decided by the Committee by simple majority vote of the Committee members present at the hearing.

16. When at least one party to the grievance fails to accept the Subcommittee solution to the grievance but the Hearing on the Grievance is not held, the Committee will proceed as in 13, 14, and 15.

17. The Chairman shall keep in confidence all records pertinent to each grievance and pass these records to the Committee Chairman who succeeds him.

18. The Chairman should make every effort to inform the University students and faculty of the existence, function, and rules and procedures of the Student Relations Committee.

19. Five Committee members shall constitute a quorum for transaction of Committee business.

20. The Student Relations Committee shall meet as often as necessary to swiftly dispense with grievances brought before the Committee.

21. The Committee shall seek the advice of the University Counsel in its deliberations and in the preparation of its findings and recommendations concerning grievances.

22. These rules and procedures can be amended by unanimous vote of Committee members present at any meeting of the Committee. Notification of any amendments to these rules and procedures should be given to the President of the University via the Vice President for Student Affairs and the Dean of the University. Notification of any amendments also should be given to the Presidents of the Faculty and Student Senates.

MINUTES OF THE FACULTY SENATE MEETING, MARCH 13, 1973 (Continued)

Professor Hodges moved that the Student Relations Committee be established as a permanent University Committee in conformance with the preceding resolution. The motion carried.

Professor Bauld presented a resolution concerning the Speaker's Bureau on behalf of Professor Castro. The resolution passed.

RESOLUTION

Scheduling Outside Speakers

Whereas the Speaker's Bureau is charged with the responsibility of presenting to the Student Body and the University Community a program of timely and provocative speakers which contributes to the accomplishment of the educational objectives of the University

Whereas Funds for the Speaker's Bureau are derived from Student Activity Fees, and

Whereas a significant percentage of the student body and university community cannot attend programs held in the afternoon because of required academic activities, and therefore derive no benefit from these programs; therefore

Be it resolved that the Speaker's Bureau adopt the policy of scheduling these programs during evening hours which would conflict with the least number of scheduled academic activities.

MINUTES OF THE FACULTY SENATE MEETING, MARCH 13, 1973 (Continued)

Professor Rimkus presented a resolution concerning student parking permits. The motion was seconded. An amendment to delete one section regarding punishment for misuse was moved and carried. The original motion as amended carried.

RESOLUTION
Student Parking

Whereas it is the feeling of a significant portion of the Clemson faculty that student use of temporary permits to park in faculty parking areas has been grossly abused:

Be it resolved that this faculty Senate calls upon the proper authorities to institute the following recommendations:

1. No student should be issued a temporary parking permit without proof of a truly disabling health condition.

2. Such temporary parking permits should be issued only to the person with such a disabling health condition.

3. No such temporary parking permits should be issued for more than a period of seven days unless the disabling health condition is permanent.

4. Such seven day temporary parking permits should be renewable so long as the disabling health condition continues to exist.

Professor Wallenius presented the following resolution:

"Whereas there does not exist an indexing system so that Faculty Senate resolutions can be conveniently referenced, be it

Resolved, that the secretary devise and apply a system of identification."

The motion carried.

There being no further business, the meeting was adjourned at 7:10 p.m.

Veronica D. Carmack
Acting Secretary

Absent from meeting: B. J. Skelton, J. R. Hill, D. O. Ezell, W. E. Castro.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MARCH 27, 1973

The meeting was called to order at 4:10 p.m. by President Rogers, who reported that the special meeting was called to discuss the proposed honor system for Clemson University.

President Rogers presented W. V. Bost, Assistant to the Vice President for Student Affairs, who presented the honor system proposal to the Senate. After the presentation, Professor Rimkus moved that the Faculty Senate not endorse the proposed honor system, and that the proposal be returned to the Admissions and Scholarship Committee for further study and improvement. The motion was seconded. In the following discussion, several senators pointed out that academic affairs should be handled by the faculty and not by students as the proposal seemed to dictate.

The motion carried.

There being no further business, the meeting adjourned at 5:10 p.m.

B. J. Skelton, Secretary

Absent from meeting: D. O. Ezell, J. A. Hash, A. R. Abernathy, W. Baron, E. P. Arnold.

MINUTES OF THE MEETING OF THE UNDERGRADUATE COUNCIL, MARCH 2, 1973

The Undergraduate Council met in the conference room, E-103, Martin Hall. The following were present: Dean Claud B. Green (Chairman), Luther W. Baxter, Carolyn Briscoe, Lamar H. Brown, W. O. Corder (Visitor), Robert L. Cross, Arline M. Duvall, Lawrence W. Gahan, Ralph W. Gilchrist, Robert McLellan (Visitor), Jerome V. Reel, Malcolm J. Skove, Rodney Sprott (Student Representative), Edward A. Vaughn, and Kenneth N. Vickery.

The minutes of the Feb. 2, 1973 meeting were approved as distributed.

An ad hoc committee consisting of Kenneth N. Vickery, Chairman, Robert L. Cross, Luther W. Baxter, James C. Fanning, Douglas W. Bradbury, and Rodney Sprott (Student Representative) was appointed to conduct a thorough study of the University grading system. The committee report will be presented no later than Spring 1974.

A subcommittee report on the proposal from the Department of Agricultural Economics and Rural Sociology for an undergraduate major in Community and Resource Development was submitted by Dr. Lawrence Gahan, Subcommittee Chairman. The subcommittee recommendations were as follows:

1. That there is a lack of adequate General Education courses included in the proposed curriculum and therefore it is felt every opportunity should be made to include such courses.

2. That the title for the proposed major more accurately reflect the primary thrust of the proposed curriculum coursework. Perhaps the following title might be more appropriate "Rural Economic Development."

There was a motion and a second to accept the subcommittee report; the motion was approved. The proposal will be referred to the College of Agricultural Sciences for further study.

College of Agricultural Sciences

Approval was given for changes in the undergraduate agricultural sciences curricula to provide a minimum of 15 credit hours per semester (excluding Military Science).

College of Education

Approval was given for the following courses:

Ed	469	Characteristics of Children with Emotional Handicaps
Ed	470	Characteristics of Children with Learning Disabilities
Ed	474	Educational Procedures for Children with Emotional Handicaps
Ed	475	Educational Procedures for Children with Learning Disabilities

MINUTES OF UNDERGRADUATE COUNCIL MEETING, MARCH 2, 1973 (Continued)

College of Forest and Recreation Resources

A proposal for Elective Courses in Recreation Sports was presented by Dr. Lawrence W. Gahan. The following one hour courses were approved:

Beginning Swimming	Intermediate or Advanced Tennis
Diving	Badminton
Sailing	Handball - Racquetball
Canoeing	Beginning Golf
Beginning Tennis	Adaptive Exercise

College of Industrial Management and Textile Science

Approval was given for the following course:

Econ 203 Consumer Economics

Approval was given for the following change in the Industrial Management curriculum:

Delete the no credit courses, IM 100, Introduction to Industrial Management, and IM 409, Management Simulation. IM 409 will be made a part of IM 402, Operations Planning and Control.

Approval was given for the following curricular changes on the condition that the Industrial Management Curriculum be readjusted to include 10 hours of free elective credit:

In the sophomore year of the Industrial Management and Administrative Management curricula delete IM 299, Computer Programming I, as a required course; add Comp Sc 205, Elementary Computer Programming.

For the Industrial Management, Administrative Management, and Accounting curricula, balance credit hours at approximately 16 per semester.

College of Nursing

The following changes in the Nursing curriculum were approved with a recommendation that 1 hour of free elective credit be added to the program:

Nurs 311 Nursing During Alterations in Life Patterns. Change in credit hours.

Nurs 312 Nursing of Acute and Chronically Distressed. Change in credit hours.

Nurs 422 Current Research in Nursing will be taught in the first semester, senior year and be prerequisite to Nurs 425, Independent Study.

Nurs 415 Nursing as a Social Force will be taught in the second semester, senior year.

College of Physical, Mathematical and Biological Sciences

Approval was given for the following course:

Phys 245 Energy Sources Available to man

Approval was given for changes in the Medical Technology curriculum to provide a minimum of 15 credit hours per semester.

MINUTES OF THE UNIVERSITY LIBRARY COMMITTEE MEETING, MARCH 12, 1973

Present: Ralph E. Knowland (Chairman), William Baron, R. J. Calhoun, Elizabeth Galloway, Opal S. Hipps, Ursula A. Holahan, John R. Ray, R. E. Schoenike, J. M. Wannamaker, J. W. G. Gourlay (Secretary).

The minutes of the meeting of February 12 were approved.

The Ad Hoc Committee to Study Student Resolution No. R-73-08 concerning the extension of library hours, Dr. William Baron, chairman, recommended that because of the fact that the first priority for the expenditure of the library funds must be for the purchase of library books the schedule of library hours remain as at the present time. The recommendation was unanimously approved.

Mr. Gourlay had prepared for discussion material concerning branch libraries. Factors to be considered in the discussion were security, hours of available service, personnel, budget, the necessity for benefiting the greatest number of potential users as well as providing for the needs of specialized groups.

After discussion, an ad hoc committee, Ralph E. Knowland, Chairman, R. J. Calhoun, and J. W. G. Gourlay was appointed to prepare guidelines for the administration and operation of branch libraries. These guidelines would be considered by the library committee at the April meeting. Mr. Knowland advised the committee that he would distribute these recommendations to the members prior to the April meeting.

Time of next meeting: Monday, April 9, at 3:30 p.m.

OFFICERS FOR PHI KAPPA PHI, 1973-74

The Clemson University Chapter of Phi Kappa Phi elected the following officers for the 1973-74 school year:

Dr. Evans S. LaRoche, President
Mr. John S. Pratt, Vice President
Dr. James T. Ligon, Secretary-Treasurer
Mrs. Ludmila A. Savitsky, Public Relations Officer

John S. Pratt is also president of the Clemson University student body.

GRADUATE COUNCIL MINUTES, MARCH 9, 1973

The meeting of the Graduate Council was called to order by Dean Schwartz. Those present were: Dr. Brown, Dr. Allen, Dr. Bolen, Dr. Camper, Dr. Freeze, Professor Means, Dr. Gauthreaux (alternate for Dr. Brawley), Dr. Dysart, Dr. Macaulay and Mr. Mushinsky. Professor Godbout attended as a visitor.

The mimutes of the February 9, 1973 meeting were approved as distributed.

The following graduate courses and changes were approved:

COLLEGE OF AGRICULTURAL SCIENCES

Fd Sc	601	Food Chemistry I (Repl. Fd Sc 613)
Fd Sc	602	Food Chemistry II (Repl. Fd Sc 616)
Fd Sc	622	Quality Assurance and Sensory Evaluation (Repl. Fd Sc 612)
Fd Sc	624	Quality Assurance and Sensory Evaluation Lab (Repl. Fd Sc 614)
Hort	670	Horticultural Therapy
Nutr	701	Therapeutic Nutrition
Nutr	702	Public Health Nutrition
Nutr	703	Nutrition Education
Nutr	704	Feeding Methods
Nutr	705	Field Training in Nutrition

COLLEGE OF EDUCATION

Ed	659	Fundamentals of Basic Reading
Ed	661	Teaching Reading in the Elementary School

COLLEGE OF ENGINEERING

Ag E	633	Design Criteria for Plant and Animal Environment

COLLEGE OF PHYSICAL, MATHEMATICAL AND BIOLOGICAL SCIENCES

Astr	612	Spherical Astronomy
Astr	621	Introduction to Radio Astronomy
Zool	656	Parasitology (increase in credit hours)

The following courses were tabled:

Ag Ed	631	Methods in Environmental Education (Revised course title and description)
Bot	631	Introductory Plant Taxonomy (Repl. Bot 656)

Dean Schwartz administratively approved the following courses:

Vis	850	Visual Arts Studio (clarifies status of existing course)
Vis	870	Visual Arts Studio (clarifies status of existing course)
CE	631	Applied Soil Mechanics (Repl CE 630 and corrects . catalog inconsistency)

Additional supporting information was provided for the proposed Master of Science program in the College of Nursing. A motion was made to approve the program as presented previously and as amended in the material presented

GRADUATE COUNCIL MINUTES, MARCH 9, 1973 (Continued)

at this meeting. The motion was seconded and approved unanimously.

A revised policy on credit hour load for graduate students was discussed. Dean Schwartz stated the Graduate School has many requests by students and departments to increase the number of hours allowed. A motion was made to approve this policy, seconded and passed.

Dr. Allen, chairman of the Language subcommittee, discussed a questionnaire regarding language requirements which was to be mailed to all faculty members. A few modifications were suggested and these were to be incorporated before mailing out. This committee distributed a report recommending that Mr. Oscar Henry's request for foreign language credit be denied. A motion was made to approve this recommendation, seconded and passed.

Dr. Camper, chairman of the Thesis Manual subcommittee, presented a progress report on the work of his group.

Excerpts from the Faculty Manual and the January Faculty Senate meeting were distributed and discussed as relating to the approval of candidates for graduate degrees.

A motion to adjourn was made, seconded, and unanimously passed.

COLLEGE OF PHYSICAL, MATHEMATICAL, AND BIOLOGICAL SCIENCES

Four research papers were presented at the annual Association of Southeastern Biologists meeting at Bowling Green, Ky. on Apr. 13 from the departments of Zoology and Microbiology. All are abstracted in the Apr., 1973 ASB Bulletin.

"Temperature influence on bacterial populations in three aquatic systems" was co-authored by D. S. Cherry (Zoology Doctoral Stu), R. K. Guthrie (Assoc Dean), and R. S. Harvey of the duPont Company. This work was done on a Facilities Use Agreement with the AEC at the Savannah River Project.

"Laboratory studies of thermal effects on bacterial populations from reservoir ecosystems" was co-authored by R.K. Guthrie, D. S. Cherry, and R. N. Ferebee (Ph.D. grad from dept. of Microbiology, now a faculty member at Univ of Arizona).

"Temperature influence on vertical distribution and gonadal development of fish populations in a reservoir ecosystem" co-authored by D. S. Cherry, W. K. Willard (Assoc Prof, Zoology), and R. K. Guthrie.

"The effects of diuron on bacterial populations from a polluted and a newly formed reservoir ecosystem" was co-authored by R. N. Ferebee, D. S. Cherry, and R. K. Guthrie.

MINUTES OF THE MEETING OF THE COMPUTER ADVISORY COMMITTEE

The committee met on December 11 with the following attendees: J. P. Crouch, W. G. Grayson, G. E. Howard, R. J. Knapp, L. M. Lundberg, A. B. Marx (for Dean K. N. Vickery), M. C. Palmer, J. C. Peck, P. B. Ross, Jr., M. L. Wolla, C. E. Woodall, R. F . Zant, and visitors R. E. Chapel and Dean A. E. Schwartz.

Acting as temporary chairman, Mr. Palmer read the charter of the committee as set forth in the Faculty Manual and presided over the election of Dr. Peck as chairman. Mr. Chapel was appointed recording secretary.

A report by Mr. Palmer outlining some of the problems confronting the Computer Center was read and discussed. In brief:

1. The physical space available to users is insufficient.
2. A system must be developed for allocation of lines for time-sharing.
3. Line allocation is part of the larger problem of allocation of computing resources.
4. The 370/155 computer system has the capacity to serve batch requirements for some time, but the amount of time-sharing that can be supported without serious degradation of batch computing is limited.

Mr. Palmer agreed to provide each member of the committee with a copy of the computer system procurement package, consisting of the recent request for proposal and associated documents. The package will include a membership list of the Technical Advisory Committee which took part in the acquisition.

Dr. Peck expressed his intention to create a technical advisory committee and an operations committee early in the spring semester, and asked members of the parent committee to recommend candidates.

It was agreed to submit the minutes of meetings to the Clemson Newsletter for publication.

HISTORY

James E. Sargent (Asst Prof) presented a paper on "Franklin D. Roosevelt, Lewis W. Douglas, and Economy in Government, 1933-1934," at the Organization of American Historians Convention in Chicago, Apr. 12.

MINUTES OF AUDIO-VISUAL COMMITTEE MEETING, MARCH 13, 1973

The March meeting of the University Audio-Visual Committee was held at 3:00 p.m. in Daniel Hall. The following members were present: Joyce Kelley, Sam Wang, Revis Frye, Thomas E. Douglass, M. W. Jutras, and Betty Watkins.

The meeting was called to order by Chairman Jutras. The group viewed the movie, "Personalized System of Instruction," which was secured by Harry Durham.

Following the movie, the minutes were amended and approved.

Chairman Jutras called for old business. The subcommittee on communication services had no report to present at this time.

Mr. Frye, chairman of the subcommittee on Software asked for clarification of subcommittee responsibilities. Chairman Jutras outlined responsibilities as follows: (1) determine how the University can best get the greatest value for money spent in securing software, and (2) determine some idea of software needs in the event Communication Center funds are budgeted for this purpose. Chairman Jutras suggested Mr. Frye use the information collected in the recent Audio-Visual Aid Survey which was interdisciplinary in nature.

Dr. Douglass reported that 37 of the 61 questionnaires had been returned thus far.

There was no report from the A.V. Display subcommittee. Chairman Jutras re-emphasized the fact the display would be open on Friday and Saturday, April 27 and 28.

Following a committee request, Chairman Jutras appointed a subcommittee to look into the possibility of the A.V. Committee sponsoring an intensive A.V. short course or seminar on the development and effective use of instructional materials. Subcommittee members appointed were J. C. Hubbard, Jr., and Joyce Kelley.

Chairman Jutras called for new business. Dr. Douglass reported on a recent conference on the use of Audio-Visuals in instruction. In relation to the use of Audio-Visuals for more effective teaching, Mr. Wang moved that the University Communications Center develop a sample slide/tape program which would illustrate use of the system in a teaching situation. The motion was seconded by Dr. Douglass. There being no discussion, the motion was carried unanimously.

The meeting was adjourned at 4:20 p.m.

CHEMICAL ENGINEERING

The following papers were presented at the 74th National AIChE meeting in New Orleans, La., Mar. 11-15:

R. C. Harshman (Prof) and E. D. Sloan (Grad Stu) - "The Combined Effects of Natural and Forced Convection in a Dual Membrane, Horizontal, Parallel Plate Ultrafilter."

S. S. Melsheimer (Asst Prof) - "A Theoretical and Experimental Study of Donnan Dialysis, A Continuous Ion Exchange Membrane Process." Co-authors were H. M. Kelley, L. F. Landon, and R. M. Wallace of the E.I. duPont, Savannah River Laboratory, Aiken.

J. N. Beard (Asst Prof) - "A Simple Algorithm for the Time-Optimal Control of Chemical Processes." Co-authors were F. R. Groves, Jr., and A. E. Johnson, Jr., Louisiana State University, Baton Rouge, La.

D. F. Bruley (Prof), published with H. I. Bicher, M. H. Knisely (Profs, Medical Univ) and D. D. Reneau (Prof, La Tech) - "Brain Oxygen Supply and Neuronal Activity Under Normal and Hypoglycemic Conditions, American Journal of Physiology, Vol. 224, pp. 275-282, 1973.

D. F. Bruley was an invited participant at the NIH sponsored "Head Injury Workshop" at Bethesda, Md., Feb. 24-26.

D. F. Bruley presented a seminar "Systems Studies in the Microcirculation" University of Colorado, Boulder, Colo., Mar. 22.

D. F. Bruley edited the book, Oxygen Supply - Theoretical and Practical Aspects of Oxygen Supply and Microcirculation of Tissue - Urban and Schwarzenberg, with Kessler (Germany), Lubbers (Germany), Silver (England), Clark (USA), Strauss (USA), in Feb. 1973.

D. F. Bruley published with M. H. Knisely, H. I. Bicher, and D. D. Reneau, Oxygen Supply - Theoretical and Practical Aspects of Oxygen Supply and Microcirculation of Tissue, Feb. 1973:

(a) Modeling Cerebral Tissue Oxygenation with Autoregulation, pp. 32-39.
(b) On-Line Computer Simulation of Oxygen Response in Brain During Anoxic-Anoxia, pp. 40-50.
(c) Regulatory Mechanisms of Brain Oxygen Supply, pp. 180-185.

CHEMISTRY

Papers presented at the 46th annual meeting of the South Carolina Academy of Sciences, Mar. 29-31, Columbia were:

A. L. Beyerlein (Assoc Prof) and M. Stafford (Grad Stu), "Exact Solutions of Semi-Infinite Crystals of Hard Particles."

R. E. Baldwin (Grad Stu) and Frederick Lindstrom (Prof), "A Spectrochemical Determination of the Background Levels of Selected Metal Ions in the Hartwell Drainage Basin, 1972-73."

C. V. Hinton, Jr. (Grad Stu) and H. G. Spencer (Prof), "Copolymerization of Methyl Acrylate and 1,1-Diphenylethylene."

J. C. Fanning (Prof), T. L. Gray (Grad Stu) and N. Datta-Gupta (Prof, S. C. State College), "The Reaction of Nitrogen Dioxide with Octaethylporphinatoiron (III) Chloride."

N. Datta-Gupta, R. Krishnamurthy (Prof, S. C. State College) and J. C. Fanning (Prof), "Preparation, Spectral, and Magnetic Studies of Halo-manganese (III) Complexes of Meso-Tetra-Para-Carbonmethoxyphenylporphin."

John Jacobus (Assoc Prof) presented a seminar in the Chemistry Dept. of Western Carolina University, Mar. 30 entitled, "Symmetry in Nature and Chemistry."

Recent publication by J. W. Huffman (Prof) and L. H. Zalkow, "The Structure of Paradisiol and its Identity to Intermedeol," Tetrahedron Lett., 751 (1973).

COLLEGE OF FOREST AND RECREATION RESOURCES

William H. Davis McGregor (Dean) was recently elected chairman of the South Carolina Subsection, Appalachian Section, Society of American Foresters.

Herbert Brantley (Assoc Dean) gave the Keynote Address at the Southern District Conference, National Recreation and Park Association in Memphis, Tenn. on Mar. 25.

FORESTRY

R. M. Allen (Prof and Hd) participated in a panel discussion of "Supply and Demand of Foresters" at the annual meeting of the Appalachian Section, Society of American Foresters in Norfolk, Va.

CIVIL ENGINEERING

J. Edwin Clark (Assoc Prof) presented a paper entitled, "An Economic Analysis of a Hybrid Traffic Control System Using RUNCOST" at the annual meeting of the Southern Section of the Institute of Traffic Engineers in New Orleans, Apr. 1-5. The paper won an award for the best technical committee report. P. J. Rowell (Grad Stu) presented "Traffic Generation Characteristics of Community Shopping Center" co-authored by Donald B. Stafford (Assoc Prof) at the same meeting.

Billy L. Edge (Assoc Prof) presented a paper, "Hybrid Computer Simulations of a Moored Buoy and Water Quality of a Stream" at the Analog/Hybrid Computation in Education Session of the 1973 Southwestern Institute of Electrical and Electronics Engineers Conference in Houston, Tex., on Apr. 6. The paper was co-authored by Frank Weisgerber (Grad Stu, CE) and Joseph O'Brien (Grad Stu, WRE).

Herbert W. Busching (Assoc Prof and Hd) participated in the Public Education Committee meeting of the American Road Builders' Association Annual Convention held in Houston, Tex., Apr. 1-5. This committee was established for the purpose of investigating the needs for informing the younger segment of the public, from grade school to college level, on the merits of transportation systems and particularly on the role of the Transportation Engineer.

Billy L. Edge participated in a meeting of the Water Quality Committee of the Marine Technology Society and the Purpose Subcommittee held in Washington, D.C. on Apr. 2.

J. Edwin Clark and Lewis T. Fitch (Assoc Prof, E&CE) are co-investigators of a $15,000 study to be made by Clemson University of the role of communictions in a statewide emergency medical service, which is part of the State Board of Health's Emergency Medical Service Plan. The study will include a look at communications links between hospitals and ambulance services, specifications for proposed communications equipment and criteria for putting the plan into effect.

Billy L. Edge was chairman of the 1973 South Carolina Academy of Science annual meeting on "An Engineering Approach to Water Resource Development in South Carolina" held at the University of South Carolina on Mar. 29-31. Stanley W. McChesney (LT, U.S. Air Force, Columbus AFB, Miss. and former Grad Stu, ESE) and Dr. Edge (co-author) presented a paper entitled, "The Intracoastal Waterway from Winyah Bay to Little River Inlet - Hydrodynamics and Water Quality" at this meeting.

Billy L. Edge presented a paper entitled "A Water Ouality Model for the Grand Strand of South Carolina" to the1973 annual American Geophysical Union meeting in Washington, D.C. on Apr. 17.

CIVIL ENGINEERING (Continued)

Jackson S. Love (Asst Prof) was moderator for a seminar on brick masonry held at Clemson University on Apr. 12. The seminar provided basic information on brick masonry engineering to students and practicing architects and engineers.

William Baron (Assoc Prof) is offering a short course (six weeks) on "Design of Shallow Foundations." The course, designed for practicing engineers, is sponsored by the department of Continuing Education in Civil Engineering and is being offered in Greenville.

Subhash C. Anand (Assoc Prof) has a paper published in the April issue of Engineering Issues - Journal of the Professional Activities of the American Society of Civil Engineers. The paper is entitled "An Educator - Practitioner Interaction Program" and describes the objectives and the experiences of an NSF-supported summer institute for college teachers directed by Dr. Anand last summer at IIT, Chicago, Ill.

ELECTRICAL AND COMPUTER ENGINEERING

J. W. Lathrop (Prof) will attend the Electronic Components Conference in Washington, D.C., May 14-17. Dr. Lathrop will be chairman of a panel discussion session on the use of Hybrid Microelectronic Laboratories by Universities.

H. V. Poe (Assoc Prof) was a speaker at the Spring Technical Conference, S. C. Affiliation of Sections, IEEE, Columbia, Apr. 13. His topic was "Industrial Plant Grounding Systems."

ENGINEERING MECHANICS

E. Harry Law (Asst Prof) published "Analysis of Nonlinear Wheelset Dynamics" in ASME Journal of Dynamic Systems, Measurement, and Control, Mar. 1973 with Dr. R. S. Brand of the University of Connecticut.

E. Harry Law has been selected to attend an NSF Summer Institute on Noise Control in Engineering Design. The Institute will be held at Syracuse University from June 18 to July 13.

ENGINEERING RESEARCH

P. J. Aragon (Chemistry Dept, Universidad Delos Andes), B. W. Sauer (Asst Prof) and S. F. Hulbert (Assoc Dean) presented a paper entitled, "In Vivo Corrosion Studies of Prosthetic Metals" at the Seventh Caribbean Chemical Conference, University of Puerto Rico, Upr, Mayaguez, Jan. 8-12.

ENGINEERING RESEARCH (Continued)

W. B. Hammer (Oral Surgery, Medical College of Ga), R. G. Topazian (Oral Surgery, Medical College of Ga), R. V. McKinney, Jr. (Oral Pathology, Medical College of Ga) and S. F. Hulbert (Assoc Dean) published a paper entitled, "Alveolar Ridge Augmentation with Ceramics," in the Journal of Dental Research, Vol. 52, No. 2, pp. 356-361, March-April 1973.

ENVIRONMENTAL SYSTEMS ENGINEERING

B. C. Dysart III (Assoc Prof) presented a seminar for graduate students and faculty in the water resources engineering program at the University of Michigan in Ann Arbor on Apr. 9. The subject was "Simulation of Stochastic Components for the Design of Pollution Control Facilities." Dr. Dysart also served as a member of a National Science Foundation Site-Visit team for Michigan State University in East Lansing, Apr. 10-11. The team reviewed mathematical modeling approaches being used by project personnel in the Electrical Engineering & Systems Science Dept. for a comprehensive environmental management study supported by NSF's RANN program.

J. F. Andrews (Prof and Hd) attended a meeting in London on Apr. 27 of the Organizing Committee for a Conference on Instrumentation, Automation and Control of Wastewater Treatment Systems. He is serving as program chairman of the conference which is sponsored by the International Association on Water Pollution Research and will be held in London, Sept. 17-21.

At the South Carolina Academy of Science 46th annual meeting in Columbia on Mar. 29-31, the following members of the ESE Dept. attended and gave papers as shown:

A. R. Abernathy (Assoc Prof) presented a paper co-authored with Michael G. Waldon (former Grad Stu in Bioengineering) entitled "Simulation of Primary Production in Lake Hartwell."

B. C. Dysart presented "Multiple-Purpose Development of the Water Resources of the Waccamaw River Basin," co-authored by Forest M. Whittington (former Grad Stu).

T. M. Keinath (Assoc Prof) presented a paper entitled,"Wastewater Renovation and Reuse/State of the Art" on Apr. 26 at the National Symposium on Ultimate Disposal of Wastewaters and their Residuals, Duke University, Durham, N.C.

ENGLISH

Jerome H. Mandel (Assoc Prof) presented a paper, "The Structure of Araby," at the annual meeting of the Northeastern Modern Language Association in Boston on Apr. 6.

Janice L. Sargent (Instr of Speech) presented a paper, "Small-group Communication and the Women's Liberation Movement: an Analysis of Consciousness-Raising Groups" at the annual convention of the Southern Speech Communication Association in Lexington, Ky., Apr. 3-6.

Arthur J. Fear (Assoc Prof of Speech) served as chairman of the Constitution Committee of the Southern Speech Communication Association at its annual convention at the University of Kentucky. He was also named to the prestigious Committee of Twelve.

Charles L. Montgomery (Instr of Speech) was recently elected as Secretary-Treasurer of the Southern Forensic Association.

HISTORY

J. L. Arbena (Asst Prof) has published a review of Robert B. Toplin, The Abolition of Slavery in Brazil, 1880-1888 (New York: Atheneum, 1972), in History: Review of New Books (April 1973).

At the annual meeting of the South Carolina Historical Association at Converse College on Apr. 7, C. W. Bolen (Prof) was elected president of the organization and H. D. Adams (Asst Prof) was appointed editor of its Proceedings for the coming year. E . M. Lander (Alumni Prof) presented "The Palmetto Regiment Goes to Mexico," and J. Y. LeBourgeois (Asst Prof) was critic for a paper on "The Naval Policy of England's Liberal Government, 1906."

LANGUAGES

R. R. McGregor (Asst Prof) led a discussion on the subject of individualized instruction in the foreign language classroom at the spring meeting of the South Carolina chapter of the AATF at the University of South Carolina on Mar. 31.

H. E. Stewart (Prof and Hd) directed the administration of the National French Contest for the AATF chapter of South Carolina.

Ed Arnold (Instr) has been selected to receive a Fulbright Grant to attend a summer seminar in Germany for American teachers of German.

LANGUAGES (Continued)

Patricia Wannamaker (Assoc Prof) and Ed Arnold (Instr) participated in the meeting of the S. C. Chapter of the American Association of Teachers of German. Ed Arnold, Chapter President presided over the meeting held Mar. 31 at the University of South Carolina. He led a session entitled, "Opportunities for American Teachers and Students of German in Europe." Dr. Wannamaker was chairman of the nominating committee.

PSYCHOLOGY DEPARTMENT

Four faculty members presented a symposium on the Personalized System of Instruction at the annual meetings of the South Carolina Psychological Association held in Charleston. B. Caffrey (Assoc Prof and Hd) was the chairman; D. Marx (Asst Prof) discussed the historical background of the PSI; L. Park (Asst Prof) presented various approaches to the management of learning systems; and J. Vacher (Asst Prof) discussed solutions to practical problems involved in the implementation of a PSI program.

L. Berger (Asst Prof) recently completed a 5-week program on interpersonal relations in industry at Piedmont Tec in Greenwood.

L. Park (Asst Prof) has published a paper "Reticuloendothelial Stimulation and Depression: Effects on Conditioned Suppression" in the December issue of the Journal of the Reticuloendothelial Society.

William R. Fowler (Asst Prof), in cooperation with F. A. King and L. Roberts (Univ of Fla, College of Medicine) had a paper "Recovery and Conditioning in Isolated Forebrain" printed in the Proceedings of the International Union of Physiological Sciences.

N. S. Cole (Assoc Prof) was again selected as treasurer for the South Carolina Psychological Association through 1973.

UNDERGRADUATE STUDIES

Frank A. Burtner (Coordinator for Preprofessional Health Education) was elected Chairman, Southeastern Association of Advisers for the Health Professions, at the annual meeting held jointly with the Group on Student Affairs, Southeastern Region, Association of American Medical Colleges, in Williamsburg, Va.

INTERDISCIPLINARY STUDIES

A. M. Weinstein (Asst Prof) chaired a technical session entitled: "Biocarbons - Implants and Prosthetics" at the 18th National Society for the Advancement of Material and Process Engineering Symposium and Exhibition in Los Angeles, Calif. on Apr. 4.

A. M. Weinstein presented a seminar entitled, "Attachment of Prostheses by Tissue Ingrowth into Porous Materials" on Apr. 5 at the University of Southern California School of Dentistry.

MATHEMATICAL SCIENCES

William R. Hare, Jr. (Assoc Prof) has had the following article published recently: "On convex subsets of a polytope," Proc. Amer. Math. Soc. Vol. 35 (1972), p. 238, with C. R. Smith.

K. T. Wallenius (Prof) presented two lectures, "Game Theory and Linear Programming" and "Misuses of Statistics" at Presbyterian College on Mar. 21 under the auspices of the Visiting Lecturer Program. This program is jointly sponsored by the American Statistical Association and the Institute of Mathematical Statistics and the Biometric Society (ENAR).

James L. Flatt (Assoc Prof) served as a member of the Visiting Committee of the Southern Association of Colleges and Schools in evaluating Sumter High School District from Mar. 19-22.

James L. Flatt and Stanley M. Lukawecki (Assoc Prof) presented talks at the "Name-of-Site" meeting of the National Council of Teachers of Mathematics in Charleston on Apr. 6.

A petition by the Newtonian Society, local mathematics club, has resulted in the establishment of a Clemson chapter of Pi Mu Epsilon, national honorary fraternity in mathematics. Installation ceremonies were held Mar. 27, with Dr. Houston T. Karnes, national president of the fraternity, presiding. Officers are: President - Roger A. Taylor, Vice President - John C. Trice, Secretary - Janet Bridges, Faculty Sponsor - Dr. S. M. Lukawecki.

John K. Luedeman (Assoc Prof) participated in an NSF - Chautauqua-type short course in Mathematical Modeling at Clark College in Atlanta, Ga. on Feb. 22-23.

John K. Luedeman presented three invited lectures at Virginia Military Institute on Mar. 14-15. The titles of his lectures were: "Game Theory - A Mathematician Looks at War," "The Generalized Translational Hull of a Semi-group," and "Pursuit Problems."

POLITICAL SCIENCE AND SOCIOLOGY

William C. Capel (Assoc Prof) and W. A. Bloom, M.D. (Tulane) presented "An exploratory study of the relation of heroin addiction to crime in New Orleans" to the Fifth National Conference on Methadone Treatment, Washington, D.C., Mar. 17-19.

William C. Capel (Assoc Prof) and Thales Parker (Undergrad Stu) presented a paper "Comparative Black and White student satisfaction with college in differing situations," at the Southwestern Sociological Association, Dallas, Mar. 21-23. In Sociological Abstracts, Vol. 21, Suppl. 30, p. 5.

William C. Capel (Assoc Prof) and Bernard Caffrey (Assoc Prof and Hd, Psychology Dept) presented a paper, "An attitudinal comparison of heroin addicts and a composite comparison group," at the Southwestern Sociological Association, Dallas, Mar. 21-23. In Sociological Abstracts, Vol. 21, Suppl. 30, p. 5.

William C. Capel (Assoc Prof), George S. Rent (UNCC) and Clyda S. Rent (Queens) presented a paper, "Student acquaintance with erotica; situational variations," at the Southwestern Sociological Association, Dallas, Mar. 21-23. In Sociological Abstracts, Vol. 21, Suppl. 30, p. 5.

W. C. Capel has a chapter on "Wives of Heroin Addicts and Family Patterns," in Family Deviancy by Bryant and Gillis. Published by F. A. Davis Co.

Ray Rimkus (Asst Prof) and Don Smith (Univ of Ala) presented a paper at the Annual Convention of the Southwest Sociological Society on Mar. 21-24, entitled "A Political Analysis of the Ability of Professors to Affect Student Attitudes: A Study of Student Reactions to Academic Title and Supposed Expertise."

Ray Rimkus (Asst Prof) presented a paper entitled 'The Use of Simulation as a Teaching Aid in International Politics" at the annual convention of the Southwest Social Science Association, Mar. 21-24.

Ray Rimkus presented a paper at the annual South Carolina Political Science Association Meeting entitled, "Tocqueville's Typology of Revolution and the Cuban Experience, or 1959 into 1800 Won't Go," on Mar. 31.

Edwin M. Coulter (Asst Prof) presented a paper entitled, "The Pakistani-American Alliance and 'The Nixon Tilt," at the South Carolina Political Science Association meeting, Mar. 31.

Harold E. Albert (Asst Prof) presented a paper entitled, "Can Local Governments Cooperate? A Qualified Negative," at the national convention of the American Society for Public Administration, Apr. 1-5.

POLITICAL SCIENCE AND SOCIOLOGY (Continued)

Ray Rimkus (Asst Prof) presented a paper entitled, "The Concept of Synthetic Organization and Foreign Policy Crisis Decisions," at the Peace Science Society (International) Southern Section meeting, Apr. 18-21.

Martin Slann (Asst Prof) has recently been elected President of the South Carolina Political Science Association.

Ray Rimkus has been elected editor of the Journal of Political Science which is published by the South Carolina Political Science Association.

Martin Slann will deliver a paper entitled, "Tolstoy and Hobbes: The Extremes and Similarities of Anarchism and Absolutism in Political Thought" at the Midwest Political Science Association Convention on May 3-5.

Charles W. Dunn (Assoc Prof and Hd) published "Black Caucuses and Political Machines in Legislative Bodies," in the Midwest Journal of Political Science (May, 1973).

Charles W. Dunn and others had accepted for publication "RLCLUST I: An IBM Program for Finding Clusters of Similar Individuals"in Behavioral Science.

Charles W. Dunn and Jack E. Tuttle (Assoc Prof) received a $10,000 grant from the Robert A. Taft Institute of Government to conduct a "Seminar in Government and Practical Politics for Secondary School Teachers" in South Carolina.

Jack E. Tuttle has been named by the South Carolina State Department of Education to review government textbooks for secondary schools.

POULTRY SCIENCE AND NUTRITION

Kaye G. Heitmann (Lab technologist) presented a paper, "Effect of Ingested Polychlorinated Biphenyl (Aroclor 1242) on Growth, Calcium and Zinc Absorption, Cellular Respiration Rate and Ultrastructure in Chicks," at the annual meeting of the S. C. Academy of Science in Columbia, Mar. 31. The paper was co-authored by SSTP students P. Lynn Bogan, Karen E. Brown, Henry F. Frierson and by D. E. Turk (Assoc Prof).

D. E. Turk (Assoc Prof) moderated a panel "Critical Nutritional Problems in S. C." at the annual meeting of the S. C. Nutrition Committee in Columbia, Apr. 5.

PHYSICS AND ASTRONOMY

P. B. Burt (Assoc Prof) and J. L. Reid (Grad Stu) have published a paper entitled, "On the Radial Distribution Function in Quantum Mechanics" in The Journal of Chemical Physics, Vol. 58, 2194, March, 1973.

The Department of Physics and Astronomy hosted the first official meeting of the South Atlantic Coast Section of the American Association of Physics Teachers on Apr. 7. The section consists of physics teachers in the three-state area of North Carolina, South Carolina and Georgia. The meeting was highlighted by talks given by Eric M. Rogers of Princeton University, a world renowned physics teacher, and E. Leonard Jossem, President of the American Association of Physics Teachers. Section officers that were elected at the meeting included F. J. Keller of Clemson University as President, and Bob Powell of West Georgia College, who received his Ph.D. in Physics at Clemson, as Treasurer.

RECREATION AND PARK ADMINISTRATION

Herbert Brantley (Prof and Hd), L. W. Gahan (Assoc Prof), and H. J. Grove (Asst Prof) led a graduate student spring trip to study recreation and park programs and agencies in North Carolina, Virginia, Washington, D.C., Maryland and West Virginia, during spring break.

Jack L. Stevenson (Assoc Prof) announced at the Mar. 14-16 meeting of the National Board of Directors of the American Camping Association the establishment of an Editorial Board for Camping Magazine, the official magazine of the American Camping Association. Dr. Stevenson serves as National Publication's Chairman for the Association.

Jack L. Stevenson published "Qualities A Director Looks for in a Camp Dietitian" in the March 1973 issue of Camping Magazine.

Jack L. Stevenson gave an address on "Setting Goals, Objectives and Performance Standards in Leisure Services" at the Southern District Conference, National Recreation and Park Association in Memphis, Mar. 26. This was part of the workshop on Administration.

C. R. White (Asst Prof) on Mar. 31 directed a one-day training seminar for community leaders responsible for administering summer day camps for the mentally retarded in South Carolina. The South Carolina Department of Mental Retardation and the Department of Recreation and Park Administration co-sponsored the institute.

REDFERN HEALTH CENTER

Donald K. Freeman, Jr., M.D. (Dir, Mental Health Section) was elected as current program chairman and president-elect for 1973-74 of the Carolinas Society for Adolescent Psychiatry (an ex-officio member of the Executive Council of the American Society for Adolescent Psychiatry), at the Spring meeting in Columbia, April 13. At the Society's Winter meeting last January in Greenville, Dr. Freeman delivered a talk on "Mental Health Service Delivery to College Students in the Carolinas--on-and Off-Campus."

TEXTILES

"Recent Findings in Flame Retardant Finishing" was the title of a paper presented at the SVCC Congress in Zurich, Switzerland on Mar. 23, by Robert H. Barker (J. E. Sirrine Assoc Prof), M. J. Drews (Post-Doc) and K. Yeh (former Post-Doc).

M. J. Drews and Robert H. Barker presented a paper, "Pyrolysis and Combustion of Cellulose, Part VI, The Chemical Nature of the Char," at the 165th National American Chemical Society meeting, Dallas, Tex., Apr. 11.

A paper, "New Developments in Textile Waste Treatment" was presented to the Palmetto Section, AATCC, Mar. 23 by John J. Porter (Assoc Prof). On Mar. 24 he presented another paper to this group entitled, "Removal of Color and Dissolved Solids from Textile Waste."

John J. Porter (Assoc Prof) presented a paper, "Reuse of Regenerated Wastewater in the Textile Plant," at the American Chemical Society meeting, Dallas, Tex., Apr. 9.

John J. Porter gave a seminar entitled, "Textile Industry and Wastewater Treatment" to the A.C.S. student chapter of Wofford College, Feb. 26.

Donald W. Lyons (Assoc Prof), J. A. Seabolt (Grad Stu) and John Graham (Res Tech, USDA) published a paper in the recent issue of the Textile Research Journal. The paper was entitled 'The Dielectric Properties of Various Cotton Varieties."

ZOOLOGY

Richard F. Walker (Asst Prof) authored a paper entitled "Temperature effects on thyroid function in the lizard, Secloporus cyanogenys" which was recently published in General and Comparative Endocrinology 20 (1):137-143 (1973).

Sidney A. Gauthreaux, Jr. (Asst Prof) presented an invited seminar to the Dept. of Biology at Georgia Southern College at Statesboro, Ga. on Apr. 3. The title of his seminar was "The Influence of Continental Wind Patterns on the Evolution and Orientation of Bird Migration."

CALENDAR OF CAMPUS EVENTS

May			Medical College Admission Test (Day to be announced).
May			Faculty and staff members interested in a course in sailing should contact Mr. Nelson at the Student Union. The course would be held at the YMCA Beach from May 7-18. Class will be limited to 12.
May	1	Tues.	Clemson Area Continuing Education Classes.
May May	1- 3	Tues.- Thurs.	"Introduction to Textile Manufacturing" is a short course to be held in the College of I.M.&T.S. Prof. J.C. Hubbard Jr., Prof. of Textiles is the chairman.
May	2	Wed.	Seminar - J.N. Beard (Asst Prof) and S.S. Melsheimer (Asst Prof) in cooperation with the Office of Industrial and Municipal Relations, will present a one-day continuing education seminar for Industrial Personnel, entitled, "An Introduction to Optimization Theory and its Applications."
May	7- 11	Mon.- Fri.	Frederick T. Simon, J.E. Sirrine Prof., will be chairman for a short course, "Basic Color Science," in the College of I.M.&T.S.
May June	9- 30	Wed.- Sat.	Architecture exhibit - architectural thesis exhibition.
May	11	Fri.	Commencement.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 19 May 15, 1973

MAY 15 1973
CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

LEMON PROFESSORSHIP OF LITERATURE ESTABLISHED

Clemson University announced May 4 the establishment of the first named professorship in its College of Liberal Arts, made possible by a $50,000 gift to the Clemson University Foundation by C. Calhoun Lemon, Barnwell businessman and civic leader and an alumnus of the Class of 1932.

The William James Lemon Professorship of Literature, named in honor of the donor's father (1879-1965) who was a Barnwell merchant and farmer, was announced by Clemson President Robert C. Edwards and dean of the college Dr. H. Morris Cox at a special faculty meeting.

The professorship will bring to Clemson a nationally known teacher-scholar.
(Continued on page 2.)

SPECIAL CLEMSON THANKS -- Clemson University officials express thanks to Mr. and Mrs. C. Calhoun Lemon (left) during special ceremonies held to announce the establishment of the new Lemon Professorship of Literature. Shown also are Clemson President Robert C. Edwards (right) and Dean H.M. Cox.

LEMON PROFESSORSHIP OF LITERATURE ESTABLISHED Continued

The Clemson University Foundation will manage the endowment. Annual income from the endowment will help support the professorship.

"The Lemon Professorship will do much more than bring a single Clemson department to the attention of scholars throughout the academic world," said Cox. "It proves that the liberal arts at Clemson are truly coming of age."

Cox said that although the position will be filled by a scholar known for research and publication, the professor must be primarily a dynamic and inspiring teacher who considers teaching and his influence on his students and colleagues as the most important elements in his professional life.

A Barnwell native, Lemon is president of five trucking companies in Greenville, Charleston and Harleyville which together make up the largest, most diversified public trucking interest in South Carolina.

He is also president of Gulf Coast Paving Co., Inc., of Miami, Fla.

Lemon attended Clemson from 1928-1930, then received a bachelor's degree in business administration from the University of South Carolina in 1932.

Always an avid Clemson supporter, he is past president and now a director of IPTAY, Clemson's athletic scholarship fund. He has served two terms on the university's Board of Visitors and is presently an active member of the deferred gifts committee of the Clemson University Foundation.

BIDS OPENED ON UNIVERSITY UNION BUILDING

Cisne & Associates Inc. of Charlotte, N.C., submitted the apparent low bid of $2,623,000 Thursday (May 3) at Clemson University for construction of a University Union Building for students and faculty.

The Cisne & Associates Inc. bid and one from Triangle Construction Co. of Greenville ($2,883,636) were read at a public bid opening on the campus.

The low bid must be approved by the State Budget and Control Board and the Clemson Board of Trustees before a contract is signed. In the event of favorable action by both groups, preliminary construction will begin in late May with completion of the project expected during the summer of 1975.

Construction of the Union Building is the next step in Clemson's total University Union and Activities Program designed to meet the needs of a projected student enrollment of 10,000.

The new building will provide the facilities to bring together many facets of student activity now scattered about the campus. It is designed to become the focal point of student and faculty extra-curricular activities, primarily of a non-athletic nature.

Although the Union Building will house a 10-lane bowling alley and rooms for billiards and table tennis, the majority of student needs for physical recreation, physical development and intramural sports activities will be served by the new facilities presently under construction at Fike Recreation Center.

BIDS OPENED ON UNIVERSITY UNION BUILDING Continued

The proposed Union Building will be in the form of a multi-level addition to the existing Johnstone Hall and Harcombe Dining Hall complex in the area known as the quadrangle. It will comprise 38,000 square feet of new construction and 13,000 square feet of remodeled area.

A new wing with facilities for all student government functions will become the west boundary of the quadrangle, overlooking a tree-lined plaza with a bandstand for concerts and speakers. The student government center will comprise chambers for the senate and high court, with adjoining offices for the senate president, high court chairman, attorney general, student body secretary and president, and a lounge area to serve as a "front door" for the student government center.

The present concrete quadrangle will be completely excavated to allow for construction of the bowling lanes and game rooms, plus another plaza with trees and fountain, all on a lower level than the present courtyard. A coffee house and lounge will also be located on this level.

Architects are Lyles, Bissett, Carlisle & Wolff of Columbia.

MANDEL NAMED OUTSTANDING EDUCATOR

Jerome Mandel (Assoc Prof, English) was among 19 Clemson University faculty members named Outstanding Educators of America for 1973 (announced in April 15 issue of Clemson Newsletter). The annual awards program honors distinguished men and women for their exceptional service, achievements, and leadership in the field of education.

CLEMSON AWARDS 945 DEGREES AT COMMENCEMENT

Clemson University awarded 945 degrees, including advanced degrees, at commencement May 11.

President R.C. Edwards conferred 753 bachelor degrees, 18 associate in arts degrees, 164 master degrees and 10 doctorates. Including graduation ceremonies in December, the University has awarded 1,797 degrees so far during academic year 1972-73. Second lieutenant commissions were conferred on 82 ROTC cadets.

PSI AND PUBLICATIONS PERSONNEL NOW IN TRUSTEE HOUSE

Public Service Information personnel and Publications personnel formerly located in the Plant and Animal Science Building are now relocated in offices at the Trustee House. The Bulletin Room and its personnel remain in their quarters in the Plant and Animal Science Building.

Personnel moving into the Trustee House are Luke Hamilton, Harold Rogers, Jack Curry, Doris Timmerman, Shirley Owens, Dot Yandle, Dreama Bridges, Mary Todd and Debby Park.

Mail to the above personnel should be directed to their offices in the Trustee House. Their telephone numbers are 656-2061, 2062, 2063.

COMMITTEE TO STUDY THE GENERAL EDUCATION REQUIREMENTS AND THE DISTINCTION BETWEEN THE B.A. AND B.S. DEGREES AT CLEMSON UNIVERSITY

The formation of a University-wide Committee to study the general education requirements and the distinction between the B.A. and B.S. degrees at Clemson University has been announced by Dr. Claud B. Green, Dean of Undergraduate Studies.

Agreeing to serve on this Committee are Dr. J. V. Reel, Jr., College of Liberal Arts, Chairman; Dr. R. W. Gilchrist, College of Engineering; Dr. J. H. Hobson, College of Physical, Mathematical and Biological Sciences; Dr. R. W. McLellan, College of Forest and Recreation Resources; and Dr. John H. Rodgers, College of Education.

The Committee has been asked to make its report to Dean Green not later than March 1, 1974.

AGRONOMY AND SOILS

Papers published: K. S. LaFleur (Assoc Prof), "Effect of heating on surface properties of diverse soils." Soil Science 115: 25-29.

K. S. LaFleur, "Some surface properties of selected soil components, Soil Science 115: 145-148.

Robert P. Gambrell (Grad Stu) and T. C. Peele (Prof), "Disposal of peach cannery waste by application to soil," Journal of Environmental Quality, Vol. 2, No. 1, Jan. - Mar. 1973.

COLLEGE OF ARCHITECTURE

Michele G. Melaragno (Assoc Prof) has published "Dwelling Structures for the Great Plains," in Building Science, Vol. 8, pp. 87-92, Pergamon Press, 1973.

CHEMISTRY DEPARTMENT

J. F. Geldard (Assoc Prof) presented a seminar to the Chemistry Dept., University of Illinois, Apr. 10, entitled, "Determination of Absolute Configuration by Exciton Theory."

J. F. Allen (Assoc Prof) presented a seminar to the S. C. Education Association Teachers' Conference in Columbia, Apr. 12 entitled, "Audio-Tutorial Chemistry Stressing Behavioral Objectives."

BOTANY DEPARTMENT

Stephen G. Gibson (Undergrad Stu) and J. E. Fairey (Asst Prof) presented a paper entitled, "A Survey of the Moss Flora of Shining Creek, Haywood County, North Carolina" at the recent meeting of the South Carolina Academy of Science in Columbia.

J. E. Fairey attended the 34th annual meeting of the Association of Southeastern Biologists Apr. 12-14 at Western Kentucky University in Bowling Green and presented a paper, "Species complexes in Sect. Hypoporum of the Genus Scleria (Cyperaceae) in North America."

C. J. Umphlett (Prof and Hd) presented a lecture, "Biological Control of Mosquitoes using Aquatic Fungi," in the Lecture Series at the Citadel on Apr. 10.

C. J. Umphlett and C. S. Huang (Res Assoc, Marianna, Fla) published recently the following paper: "Experimental Infection of Mosquito Larvae by a Species of the Aquatic Fungus, Lagenidium," Journal of Invertebrate Pathology, Vol. 20, pp. 326-331.

C. J. Umphlett was a discussant in the World Health Organization (WHO) Conference on Biological Agents for Arthropod Control, an international meeting held in Atlanta, Apr. 15-19.

C. J. Umphlett with E. M. McCray and R. W. Fay (Res Collaborators at Technical Development Laboratories, USPHS, Savannah, Ga) published the following article, "Laboratory Studies of a New Pathogen of Mosquitoes," Mosquito News, Vol. 33, pp. 54-59.

CHEMICAL ENGINEERING

S. S. Melsheimer (Asst Prof) has been selected by the O.R.A.U. for the Summer Faculty Research participation program at the DuPont - A.E.C. Savannah River Laboratory, Aiken, S. C. His research project will be concerned with Donnan Dialysis, a Membrane Ion Exchange Process.

D. F. Bruley (Prof) was awarded NIH Grant of $10,209 to continue Oxygen Transport to Brain studies during the summer months.

W. B. Barlage (Prof) has been awarded $17,500 from the National Science Foundation for second year support of a continuation grant on "The Effect of Ionic Conditions on Gas Absorption in Various Solutions of Surface-Active Agents."

CHEMICAL ENGINEERING (Continued)

D. F. Bruley (Prof) was Organizing Committee Co-chairman for International Symposium on Oxygen Transport to Tissue, sponsored by Clemson University, Medical University of South Carolina, American Microcirculation Society, and European Microcirculation Society, which was held in Clemson and Charleston, Apr. 22-27. Dr. Bruley presented the following papers with Dr. H. I. Bicher and Dr. M. H. Knisely (Profs, Medical University) at the Symposium: "Mathematical Considerations for Oxygen Transport to Tissue," "Simulating Myocardium Oxygen Dynamics," "Anti-Adhesive Drugs and Tissue Oxygenation," "Distributed Model Solution Techniques for Capillary - Tissue Systems."

F. C. Alley (Prof) and Dr. J. R. Tucker (Vice President, EEE Inc., Richmond, Va.) co-authored a paper entitled, "Reduction of Nitric Oxide on Activated Carbon at Elevated Temperatures" which was presented at the 165th National Meeting of the American Chemical Society held in Dallas, Tex., Apr. 8-13.

CIVIL ENGINEERING

R. E. Elling (Assoc Prof) had a paper published in the Journal of the Engineering Mechanics Division, Proceedings of the American Society of Civil Engineers, Vol. 99, pp. 319-330 entitled, "Concentrated Loads Applied to Shallow Shells."

ELECTRICAL AND COMPUTER ENGINEERING

T. L. Drake (Assoc Prof) presented a paper, "Real-Time Redundancy Reduction of Writing Tablet and Light Pen Tracking Data" at the 1973 IEEE Region 3 Conference in Louisville, Ky., Apr. 30- May 1.

J. N. Gowdy (Asst Prof) presented a paper, "Design of Optimum Configurations of Cascaded Digital Filters" at the 1973 IEEE Region 3 Conference in Louisville, Ky., Apr. 30-May 1. This paper was co-authored by John Hadstate (Grad Stu).

B. E. Gilliland (Assoc Prof) was an invited participant at the 1st Annual Shared Service Bioengineering Symposium at Charleston, Apr. 25-26.

B. E. Gilliland is an invited participant in a Western Electric Education/ Industry Seminar to be held May 16-18 at the Chinqua-Penn Plantation near Reidsville, N. C.

ECONOMICS DEPARTMENT

Bruce Yandle (Asst Prof and Hd) and Andy Barnett (Univ of Va) have an article, "Allocating Environmental Resources," in the May issue of Public Finance.

Robert F. Hebert (Asst Prof) participated in the proceedings of the Southern Regional Science Association Annual Meeting in New Orleans, Apr. 26-27.

Robert F. Hebert and R. B. Ekelund, Jr. (Assoc Prof, Texas A & M) have had their article, "Public Economics at the Ecole des Ponts et Chaussees: 1830-1850," accepted for publication by the Journal of Public Economics.

Lowell Nordquist (Instr) has received a grant from the State Board for Technical and Comprehensive Education for a Development Program for the "Facilitating of Career Opportunities in the Public Sector for the Disadvantaged."

Hugh Macaulay (Alumni Prof) delivered lectures under the auspices of Piedmont University Center of North Carolina on the campuses of Guilford College, Elon College, Greensboro College, Winston-Salem State University and Mars Hill College on Feb. 26-28. He also delivered an invited lecture at the recent meeting of the South Carolina Academy of Science.

Ralph D. Elliott (Asst Prof) has had the following article accepted for publication in Water Resources Research, "An Economic Study of the Effects of Municipal Sewer Surcharges on Industrial Waste and Water Usage."

ENTOMOLOGY AND ECONOMIC ZOOLOGY

S. B. Hays (Prof and Hd) with Joe Patti (Grad Res Asst) went to a meeting in Tifton, Ga. on Apr. 9-10 of the Georgia cotton insect pest management representatives to obtain computer programs for use in South Carolina with the cotton pest management program.

Gayle P. Noblet (Asst Prof) visited the S. E. Wildlife Disease Center on Apr. 24 to observe necropsies, a process which will be used in parasitology research in South Carolina.

HISTORY DEPARTMENT

J. Y. LeBourgeois (Asst Prof) has edited "William Morris to George Bernard Shaw," The Durham University Journal, March 1973.

ENGINEERING MECHANICS

J. P. Peterson (former Grad Stu), P. B. Zielinski (Assoc Prof), and W. E. Castro (Assoc Prof) have a paper entitled, "High Polymer Drag Reduction in Open Channel Flow" in the AIChE Symposium Series on Drag Reduction, Vol. 69, pp. 82-86 (1973).

W. E. Castro was elected Vice Chairman and Program Chairman of the Mechanics Division of the Southeastern Section of ASEE for 1973-74 during the recent annual meeting at the University of Georgia, Apr. 11-13.

ENGINEERING RESEARCH

S. F. Hulbert (Assoc Dean) presented a paper entitled, "Direct Skeletal Attachments of Oral Prostheses" at the Fifth Annual Brookdale Seminar in New York, N.Y. on Apr. 29.

S. F. Hulbert and J. J. Klawitter (Asst Prof) presented a paper entitled, "Interfacial Phenomena with Bioceramics" at the 75th Annual Meeting of the American Ceramic Society in Columbus, Ohio on May 1.

S. F. Hulbert and J. J. Klawitter presented a paper entitled, "Kinetics and Mechanisms of Tissue Ingrowth into Porous Ceramic Implants" at the 75th Annual Meeting of the American Ceramic Society in Columbus, Ohio on May 1.

The following papers were presented at the Fifth International Biomaterials Symposium entitled "Prostheses and Tissue: The Interface Problem" held Apr. 14-18 at Clemson University:

"Prostheses and Tissue: The Interface Problem," by S. F. Hulbert, F. W. Cooke (Assoc Prof and Hd, DIS), J. J. Klawitter, D. D. Moyle (Asst Prof), B. W. Sauer (Asst Prof) and A. M. Weinstein (Asst Prof).

"Experimental Technique: An Often Neglected Variable in Biomaterials Evaluation," by B. W. Sauer, S. F. Hulbert, and J. J. Klawitter.

"A Gravimetric Technique for the In Vitro Evaluation of Materials in Human Blood," by J. S. Wolf (Assoc Prof) and G. T. McAmish (Grad Stu).

"Deformation Mechanisms in Compact Bone," by D. D. Moyle and F. W. Cooke.

"Microstructure of Calcified Tissue," by Myron Spector (Asst Prof).

ENGINEERING RESEARCH (Continued)

"The Role of Porous Polymeric Materials in Prosthesis Attachment," by B. W. Sauer (Asst Prof), J. J. Klawitter (Asst Prof), S. F. Hulbert (Assoc Dean), R. B. Leonard (Asst Prof) and J. G. Bagwell (Grad Stu).

"Direct Skeletal Attachment of a Tibial Plateau Prosthesis," J. J. Klawitter, S. F. Hulbert, B. W. Sauer, R. B. Leonard, N. Bhatti (Medical College of Ga), and S. Lyng (Oslo, Norway).

"Biomechanical Analysis of Canine Knee Joints with Intact and Surgically Severed Anterior Cruciate Ligaments," by A. M. Weinstein (Asst Prof), D. D. Moyle (Asst Prof), and B. W. Sauer.

"Materials and Design Consideration for Implantable Teeth," by S. F. Hulbert, J. J. Klawitter, B. W. Sauer, and F. W. Cooke (Assoc Prof and Hd, DIS).

ENVIRONMENTAL SYSTEMS ENGINEERING

T. M. Keinath (Assoc Prof) chaired a meeting of the Research Committee of the Association of Environmental Engineering Professors at Lafayette, Ind. on May 1.

GEOLOGY

R. D. Hatcher, Jr. (Assoc Prof) has been invited by the U. S. Geological Survey, Office of Marine Geology, to compile the Southern Appalachians portion of a "Tectonic Map of the Gulf of Mexico."

INDUSTRIAL MANAGEMENT

Cyril O. Shuler (Assoc Prof) received a grant from HEW, PHS to sponsor a seminar in "Labor Relations and Collective Bargaining for Community and Public Service Health Employees," May 15-18. This is the fifth seminar for health administrators that has been offered.

ZOOLOGY DEPARTMENT

William E. Bachop (Asst Prof) presented a paper on scanning microdensitometry of nucleic acids at the 15th Southeastern Regional Developmental Biology Conference sponsored Apr. 16-17 by the University of Tennessee, and coauthored a paper presented at the South Carolina Academy of Sciences, Mar. 30 by Adrian Recinos, an undergraduate in the Honors Program.

PHYSICS AND ASTRONOMY

M. J. Skove (Alumni Prof) and M. D. Sherrill (Assoc Prof) have received a grant from NSF in the amount of $40,068. The grant will support a two year research project on "Superconductivity and Charging Effects in Whiskers and Thin Films."

A. L. Laskar (Assoc Prof) gave an invited talk on "The Transport Properties of Alkali-Azides" at ARO-D sponsored meeting on "The Physics and Chemistry of High Energy Materials" held at Picatinny Arsenal, Dover, N.J. on Apr. 25-27. Dr. Laskar also attended the American Physical Society Meeting at Washington, D.C., Apr. 23-24.

PSYCHOLOGY

Bernard Caffrey (Assoc Prof and Hd) presented a paper entitled, "Use of multiple regression analysis and factor analysis to design a brief, objective assessment of instructor performance," at the Southeastern Psychological Association meeting in New Orleans, La., on Apr. 6. Dr. Caffrey and Robert Bursey (Grad Stu) also presented a paper, "The influence of alcohol ingested by mother rats on the learning ability of the offspring," on Apr. 8.

Barbara Poteat (Instr) presented a paper, "Effects of vertical-horizontal dimensions and imploded testing upon children's performance in perceptual tasks" at the Southeastern Psychological Association Meeting in New Orleans, Apr. 8.

Lauretta I. Park (Asst Prof) presented a paper entitled, "Steroid hormones: Effects on conditioned suppresion in rats," at the Southeastern Psychological Association meeting in New Orleans, on Apr. 6.

Thomas G. Titus (Asst Prof) presented a paper entitled, "The effects of continuous feedback on recognition memory performance," at the Southeastern Psychological Association meeting in New Orleans, on Apr. 6.

Leonard Berger (Asst Prof) presented a paper entitled, "Use of power and its effect on the powerholder in a simulated industrial setting," at the Southeastern Psychological Association meeting in New Orleans, on Apr. 6.

Bernard Caffrey (Assoc Prof and Hd) and Spurgeon Cole (Assoc Prof) appeared on 9:30 News Public Affairs Program for the South Carolina Educational Television Network, Apr. 13 to discuss the "Medical Model approach to Mental Illness."

RECREATION AND PARK ADMINISTRATION

Herbert Brantley (Prof and Hd) and Jack Stevenson (Assoc Prof) each made major addresses on Apr. 10 to a Conference on Church and Leisure. Sponsored by South Carolina Christian Action Council and the RPA Dept. of Clemson University, the conference was held at the Keowee-Toxaway Visitors Center for religious professionals and community leaders in the northwestern area of South Carolina.

Jack Stevenson was a leader-larticipant in Grou p Work at a Symposium on "Dialogues on Responsibility." Held at the New England Center for Continuing Education on the University of New Hampshire campus, Apr. 6-9, the Symposium involved some 60 professionals in organized camping and related professions. All participants were selected and invited by the Chicago based sponsor, The Fund for the Advancement of Camping.

TEXTILE DEPARTMENT

H. S. Koenig (Grad Stu) attended the American Chemical Society Spring meeting in Dallas, Tex. and presented the paper, "Vinylbenzylethers of Cellulose: Preparation and Copolymerization," by H. S. Koenig, and C. W. Roberts (Assoc Prof), before the Cellulose, Wood, and Fiber Division.

T. J. Jacks (Head Microscopy, Southern Regional Research Labs, New Orleans), Robert H. Barker (J. E. Sirrine Assoc Prof) and O. E. Weigang, Jr. (Chairman, Dept of Chemistry, Tulane University) presented a paper, "Conformations of Oilseed Globulins Determined by Circular Dichroism," at the 165th meeting of the American Chemical Society in Dallas, Tex., Apr. 9-13.

On Apr. 5, Frederick T. Simon (J. E. Sirrine Prof) presented a paper and demonstration of "Correct Carpet Lighting for Maximum Customer Appeal," to the Carpet and Rug Institute Market Executive Conference in Atlanta, Ga.

Frederick T. Simon presented a paper, "Education at the Color Science Center, Clemson University," May 1 at the annual meeting of the Inter-Society Color Council in New York City.

D. W. Lyons (Assoc Prof) and John D. Hatcher (Asst Prof) presented a paper at the National Textile Engineering Conference, Charlotte, N. C., entitled, "A Program for the Control of the Cotton Dust Hazard." The meeting was held Apr. 11-12 and D. W. Lyons served as session chairman.

D. W. Lyons presented a paper on "Safety Programs" at the 1973 Southeastern Association of Business Officials annual conference in New Orleans, Apr. 26.

MECHANICAL ENGINEERING

Tah-teh Yang (Prof) has been invited by National Taiwan University as a Guest Lecturer. He will be in Taiwan from May 15 to June 15.

Tah-teh Yang has received a $28,749 third year research contract from U.S. Army Medical Research and Development Command for the project, "Development of CO_2 Gun for Surgical Use and Laboratory Test of the Gun."

C. A. Brandon (Assoc Prof) and M. H. Tennant (former Grad Stu) have co-authored a paper "Fluid-Particle Interaction in Two-Phase Turbulent Pipe Flow" that will appear in the ASME publication Flow Studies in Air and Water Pollution available after June 1973.

J. C. Hester (Assoc Prof and Hd) and C. A. Brandon (Assoc Prof) have co-authored a paper "Hyperfiltration Technique Applied to Wash Water Reclamation at Elevated Temperatures" to be presented at the Intersociety Conference on Environmental Systems, July 16-19 in San Diego, Calif.

MINUTES OF UNIVERSITY LIBRARY COMMITTEE MEETING, APRIL 9, 1973

Present: Ralph E. Knowland (Chairman), R. J. Calhoun, Opal S. Hipps, Ursula A. Holahan, John R. Ray, R. E. Schoenike, D. B. Stafford, J. M. Wannamaker, J. W. G. Gourlay (Secretary).

Minutes of the meeting of March 12 were approved.

Mr. Knowland presented for discussion and action "Guidelines for Establishment and Operation of Branch Libraries." After discussion, the guidelines as amended were unanimously approved. (Please see attached.)

Mr. Knowland distributed copies of a letter to the Library Committee from Dr. B. V. Bronk and Dr. Philip B. Burt concerning a survey which they had conducted among faculty and graduate students and suggesting a plan for extending library hours until 2:30 a.m. daily under limited operating procedures.

It was the unanimous opinion of the Library Committee that with the information it has at the present time it would not look favorably upon extending library hours for faculty and graduate students.

Mr. Gourlay distributed copies of the recommendations that had been made in the library self-study prior to the visit by the Committee of the Southern Association and indicated the action that had been taken on each recommendation.

Mr. Knowland announced that this was the last scheduled meeting of the University Library Committee until the fall semester and thanked the members for their cooperation during the year.

GUIDELINES FOR ESTABLISHMENT AND OPERATION OF BRANCH LIBRARIES

The University Library Committee at its regular meeting of April 9, 1973, has approved the following statement of guidelines as a recommendation for the administration of branch libraries on the University campus.

By action of the Board of Trustees on April 7, 1960, the Director of the Library - with approval of the Dean of the University - is assigned the responsibility for the decision to establish branch libraries "to provide for the needs of groups who cannot effectively conduct their studies and investigations without having convenience access to working library collections."

Recommended administrative guidelines:

1. All books and periodicals should be located where they will benefit the greatest number of potential users. Branch libraries should include only those books and periodicals which are essential to the specialized needs of that college; therefore, a very highly selective policy should be employed when selecting books and periodicals for shelving in branch libraries.

2. At the present time, and for the foreseeable future a selective policy for acquisitions utilizing university funds should be continued in order to avoid unnecessary duplication and to meet the minimum recommended standards for the library system.

3. Where branch libraries are established the dean of the appropriate college should appoint a faculty member to act as liaison between the College and the Library in order to advise the Director of the Library in matters of acquisition in accordance with the above guidelines and on other matters pertinent to the operation of the branch library.

CALENDAR OF CAMPUS EVENTS

May 15- May 18	Tues.- Fri.	"Labor Relations and Collective Bargaining for Community and Public Service Health Employees." A Short Course sponsored by the College of IM&TS with Dr. C.O. Shuler as chairman.
May 18- May 20	Fri.- Sun.	Southeastern Regional Meeting of the Animal Behavior Society. Dept. of Zoology (host).
May 21	Mon.	Registration first session summer school.
May 21- May 25	Mon.- Fri.	The College of IM&TS will sponsor a "Basic Color Science" Seminar with Mr. Frederick T. Simon, J.E. Sirrine Prof., chairman.
May 22	Tues.	Classes begin.
May 22	Tues.	Dr. B.R. Skelton will conduct a seminar in "Labor Relations Law which is sponsored by the College of IM&TS.
May 22- May 23	Tues.- Wed.	Dr. Robert Zant will be the chairman of the "General Management Development Program," sponsored by the College of IM&TS.
May 22- May 23	Tues.- Wed.	Dr. J.A. Turner, Jr. will be chairman of the "Local Government Auditing and Accounting" Seminar. This is co-sponsored by the College of IM&TS and the American Institute of Certified Pubic Accountants.
May 29 May 31	Tues.- Thurs.	An "Elementary Statistics" course will be conducted by Dr. B.J. Todd under the sponsorship of the College of IM&TS.
June 3- June 30	Sun.- Sat.	Boys Tiger Basketball Camp.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER
INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 20 June 1, 1973

NINE PROFESSORS AWARDED EMERITUS TITLES

Nine professors with a combined total of 304 years of service to Clemson University were awarded emeritus titles Thursday, May 10, during special faculty recognition ceremonies.

Named associate professor emeritus of zoology was Dr. Grant W. Anderson, a native of Freemont, Neb., who began his association with Clemson as an animal pathologist in 1936. Anderson has been a regular contributor to publications in the field of veterinary medicine.

Dr. W. Carroll Barnes, internationally prominent plant breeder at the Charleston Truck Experiment Station, was named superintendent emeritus of the Truck Experiment Station and professor emeritus of horticulture. A native of Brunson and a Clemson graduate, Barnes is known widely as "Mr. Cucumber" for his development of some 70 per cent of the cucumber varieties planted for fresh market use around the world.

Dr. Andrew C. Mathews, faculty member since 1947, received the title of professor emeritus of botany. Born in Magnolia, N.C., Mathews taught high school in his home state and worked with the U.S. Department of Agriculture as a botanist and forester prior to coming to Clemson.

Receiving the title of associate professor emeritus of agricultural economics and rural sociology was Dr. James F. Miles, a native of Richland County and a Clemson faculty member since 1957. Miles is a specialist in the poultry and dairy marketing fields and has authored over 30 publications in those areas.

A Sumter native, William C. Nettles, was named associate professor emeritus of entomology and economic zoology. A Clemson graduate ('30), he has written numerous publications on insect and disease control.

Receiving the title of professor emeritus of agricultural economics and rural sociology was Dr. Morgan C. Rochester, a Clemson graduate ('31) born in Salem. Rochester is a recognized authority on farm management practices.

Another Clemson graduate ('33), Milford H. Sutherland, was named assistant professor emeritus of agricultural economics and rural sociology. Sutherland was born in Pickens County and is the author of many studies on community development in South Carolina.

James P. Winter, faculty member since 1946, was named associate professor emeritus of English. A native of Moundsville, W. Va., Winter is a former high school teacher and college speech teacher at Defiance College in Ohio.

The title of associate professor emeritus of agricultural economics and rural sociology was awarded to Paul S. Williamon, a native of Six Mile who received both his undergraduate ('34) and graduate ('61) degrees at Clemson. A former extension service field agent, he is a farm management specialist.

CLEMSON DEBATERS WIN NATIONAL HONORS

Clemson University has become the first school to win three national champion honors in the history of the annual Student Congress sponsored by Delta Sigma Rho-Tau Kappa Alpha, the country's oldest national honorary society for intercollegiate debaters.

Only eight awards are given at the congress, a mock legislative body that through floor debates, committee meetings and introducing bills gives students some idea about the inner workings of congressional bodies.

Clemson sent four delegates to the congress, which was attended by students from some 50 colleges and universities.

Sammy Williams, senior from Allendale, was elected Speaker of the Assembly and won a "first place superior" citation. Hal Langford, junior from Columbia, was elected Conservative Party Floor Leader and also won a "first place superior." Tommy Lavender, senior from New Zion, was appointed a committee chairman pro tem, winning an "excellent award" while junior Bill Findley of Pickens was appointed a committee chairman pro tem and elected to the congressional joint committee.

The wins at the National congress came on the heels of Clemson's capturing first place in the National Contest in Public Discussion held in April in Minneapolis, Minn.

Faculty advisor to the Clemson Debaters is Charles L. Montgomery, English instructor.

COLLEGE WEEK FOR SENIOR CITIZENS NOW IN TWO SESSIONS

The third annual "College Week for Senior Citizens" got under way at Clemson University May 21 as some 250 senior citizens from throughout South Carolina enrolled for classes.

In 1971, the first year of the program, 78 persons enrolled for 16 specially designed educational and recreational courses. This year enrollment applications have skyrocketed to over 500, and a second session will be held May 28 - June 1. The curriculum has expended to over 50 courses. The S.C. Commission on Aging sponsors the program along with Clemson University's department of recreation and park administration and the Clemson University Extension Service.

REUNION WEEKEND JUNE 8, 9, 10

Clemson University's annual Alumni Reunion Weekend will be held June 8, 9, and 10 for classes of 1902, 1909, 1910, 1911, 1912, 1915, 1919, 1923, 1924, 1925, 1928, 1929, 1930, 1931, 1939, 1947, 1948, 1949, 1950, 1966, 1967, 1968 and 1969.

Among the events scheduled on Saturday are the Ladies Reception honoring the wives of Distinguished Alumni Award recipients at 10:00 a.m.; a Fashion Show for ladies at 2:30 p.m. at the Clemson House; dedication of the Alumni Center at 4:30; and the Alumni Family Banquet in Harcombe Dining Hall at 6:30. Faculty and staff are invited to attend all these events. Tickets for the Banquet are $5 and may be purchased at the Alumni Center or at the Manning Hall registration desk.

Faculty and staff are also invited to view the Thomas Green Clemson Painting Collection which will be exhibited at the Alumni Center during the weekend.

STEPP NAMED PRESIDENT-ELECT OF SOUTHERN REGIONAL SCIENCE ASSOCIATION

Dr. J.M. Stepp, alumni professor of agricultural economics and a pioneer in the studies of industrialization in the rural South and of related water policy issues, has been named president-elect of the Southern Regional Science Association.

The election of Stepp gives Clemson two of the organization's major offices. Dr. J.C. Hite, associate professor of agricultural economics, serves as secretary-treasurer.

The association is an organization of economists, geographers, sociologists, political scientists, demographers and planners interested in regional problems. It includes educators, government researchers and public administrators. Membership is centered in the states south of the Potomac but extends as far west as Texas and Oklahoma.

Stepp is a 33-year veteran of the Clemson faculty. Among his published work are three books dealing with policy aspects of natural resource management and a landmark study of the labor supply of rural industry.

His 1962 study of the economic development aspects of the proposed Trotter's Shoals dam is credited with having a major impact in delaying that project until its environmental as well as economic an political aspects could receive more adequate consideration.

Stepp serves as a consultant to the State Water Resources Commission and has served as vice-president of the Southern Economic Association and consultant to the State Development Board.

CALENDAR OF CAMPUS EVENTS

June 3- June 30	Sun.- Sat.	Boys Tiger Basketball Camp.
June 8- June 10	Fri.- Sun.	1973 Alumni Reunion Weekend.
June 8	Fri.	Alumni National Council & Foundation meet at Clemson House.
June 10- June 15	Sun.- Fri.	Tiger Sports Camp.
June 16	Sat.	Graduate Record Examination.
June 18- June 23	Mon.- Sat.	Freshman Orientation.

MINUTES OF THE MEETING OF THE FACULTY SENATE, APRIL 10, 1973

President Rogers called the meeting to order at 4:15 p.m. The minutes of the meetings of March 13 and March 27 were approved as circulated.

President Rogers presented the slate of nominations for officers of the Faculty Senate for the year 1973-1974 proposed by the Senate's Advisory Committee. They were: President: J. D. Fulton and W. F. Steirer; Vice-President: W. F. Beckwith, T. E. Skelton, and W. E. West; Secretary: P. T. Holmes and R. D. Shannon. The following officers were elected: President - J. D. Fulton; Vice-President - W. E. West; Secretary - R. D. Shannon. Since the outgoing Secretary, B. J. Skelton was absent, Professor Shannon assumed his responsibilities immediately.

The new members of the Senate were introduced. They are: Agricultural Sciences - F. H. Hedden, G. D. O'Dell and G. C. Skelley; Architecture - K. E. Carpenter; Education - J. E. Matthews; Engineering - L. T. Fitch; Forest and Recreation Resources - H. J. Grove; Industrial Management and Textile Science - C. W. Roberts; Liberal Arts - R. J. Knapp and J. Y. LeBourgeois; Nursing - M. A. Kelly; Physical, Mathematical and Biological Sciences - O. J. Jacobus.

President Rogers reported on meetings he had had with Dean Victor Hurst regarding three resolutions passed by the Senate at the February meeting. Dean Hurst declined to accept either the resolution that extension faculty be considered for tenure when they qualify, without regard to the date academic rank was granted, or the resolution regarding the nature of the committees established to aid in the appointment of college deans. Although he responded favorably to the resolution revising University policy on annual leave for faculty members on 12-month appointments, he requested that it be rewritten.

President Rogers also reported that the Student Senate Bill No. B-72-05 regarding the policy on excused absences for students has been substantially revised. He reported further that the Student Alumni Council has requested the Alumni Association to establish an "Alumni Master Teacher Award" to consist of $1000 and a plaque; the award will be started next year.

Professor West for the Welfare Committee moved the adoption of the recommended rewording of the University's Annual Leave Policy. Professor Baron submitted an amendment to change the policy for 9-month faculty members so that it would be identical to that for 12-month employees. The feeling of some Senators was that the two proposals should be tied together; the 12-month faculty desired rapid enactment of the revision, but the majority felt that the extension to include 9-month faculty members requires careful deliberation. After the failure of an attempt to send just the amendment to the Welfare Committee for consideration, the Senate voted to send both the resolution and the amendment to the Welfare Committee for consideration.

MINUTES OF THE MEETING OF THE FACULTY SENATE, APRIL 10, 1973 (Continued)

Professor West also reported that Dean Hurst is preparing information on faculty salaries by colleges.

Professor Sherrill reported for the Research Committee on the study of the University's system which determines how indirect costs are to be used as a basis for research proposals. Professor Sherrill pointed out that although the calculation is done in a "reasonable and accurate" way, the distinction between instruction and research is not clearly made. The University, he argued, should provide financial support for research faculty in the instructional capacities. In general, he has found widespread ignorance about the topic. Copies of the Research Committee's report on indirect costs are available upon request from Professor Sherrill (103 Kinard).

For the Committee on the Motor Pool, it was reported that additional cars should be available by August.

Professor Castro moved the adoption of a Resolution of Appreciation to the Thomas M. Hunter family for endowing a Chair in Bioengineering and Professor Dillon moved the adoption of a similar Resolution of Appreciation to Mrs. F. Marshall Jordan for providing funds toward the construction of a biological sciences building. Both resolutions were adopted unanimously.

RESOLUTION OF APPRECIATION

Whereas normal funding of academic programs makes it difficult to attract those faculty with international reputations for academic excellence in particular areas, and

Whereas such faculty are of vital importance in research as a resource for existing programs as well as a catalyst for development of new research, be it

Resolved that the Faculty Senate of Clemson University recognizes the significance of the gift of Mr. Thomas Mitchell Hunter, class of 1909, and his late wife, Mrs. Louise Morley Hunter, and requests the President of the University to express our appreciation to Mr. Hunter for the establishment of the Hunter Endowed Chair in Bioengineering and to reaffirm to him our pledge to continue to make the University faculty and quality of effort emanating therefrom worthy of the confidence shown in this Institution.

MINUTES OF THE MEETING OF THE FACULTY SENATE, APRIL 10, 1973 (Continued)

RESOLUTION OF APPRECIATION

Whereas the late F. Marshall Jordan, Clemson University Class of 1902, has bequeathed a substantial sum toward the construction of a biological sciences building at Clemson University, and

Whereas this building will fulfill a definite need in the development of basic biological sciences at the University, be it

Resolved that the Faculty Senate take due and proper notice of the gift and hereby express to Mrs. F. Marshall Jordan the appreciation of the Senate and that of the University faculty and administration for the funds provided; and be it further

Resolved that the Faculty Senate is in full accord with the naming of the new building to honor Marshall and Evelyn Jordan.

The Advisory Committee was elected for the coming year. In addition to the new President, Vice-President, and Secretary, it includes T. R. Adkins (Agricultural Sciences), K. E. Carpenter (Architecture), J. E. Matthews (Education), W. F. Beckwith (Engineering), H. J. Grove (Forest and Recreation Resources), C. W. Roberts (Industrial Management and Textile Science), W.F. Steirer (Liberal Arts), S. Sullivan (Library), M. A. Kelly (Nursing), and M. D. Sherrill (Physical, Mathematical and Biological Sciences).

Professor Hodges moved that the Senate go on record for commending the "industrious and efficient" way in which Professor Rogers had served in his capacity as President. The Senate was unanimously moved to applaud Professor Hodges' commendation.

Professor Beckwith pointed out that recent accidents indicated the need for bicycle paths on campus.

Professor Fulton assumed his responsibilities as President. He pointed out that there is much work to be done involving the University budget, grading systems, honor systems, faculty leave, the motor pool, and other matters. He requested that Senators follow the proposal by Professors Adkins and Camper that all items of new business be made available to the Senators one week prior to meetings. He also noted that the Senate will commence numbering resolutions for easier reference.

The meeting adjourned at 5:30 p.m.

Members absent: D. O. Ezell, N. R. Bauld, C. W. Roberts.

GRADUATE COUNCIL MINUTES, APRIL 13, 1973

The meeting of the Graduate Council was called to order by Dean Schwartz. Those present were: Dr. Brown, Dr. Wooten (alternate for Dr. Allen), Dr. Bolen, Dr. Camper, Dr. Freeze, Professor Means, Dr. Brawley, Dr. Gilchrist (alternate for Dr. Dysart), Dr. Lyons (alternate for Dr. Macaulay), Mr. Mushinsky and Mr. Brusse. Professor Godbout and Dr. Corder attended as visitors.

The minutes of the March 9, 1973 meeting were approved with two corrections.

The following graduate courses and changes were approved:

Ag Ed	631	Methods in Environmental Education (Revised course title and description)
Ed	669	Characteristics of Children with Emotional Handicaps
Ed	670	Characteristics of Children with Learning Disabilities
Ed	674	Educational Procedures for Children with Emotional Handicaps
Ed	675	Educational Procedures for Children with Learning Disabilities
Bot	631	Introductory Plant Taxonomy (Repl. Bot 656).

The Council discussed at length a request from Mr. Roy D. Greene who has a Master of Arts degree from Furman University to pursue a Master of Education degree at Clemson. This request was denied after all the facts were given consideration. It was agreed that Mr. Greene could continue to take courses, as many as desired, in a non degree seeking capacity. A proposed position concerning duplication of degrees was discussed and approved in principle. The proposal was to be rewritten and resubmitted to the Council for further action. It was agreed that the second portion of the proposal was to be received as information only.

Dr. Camper, chairman of the Thesis Manual subcommittee, gave a progress report from his committee.

Dr. Wooten distributed a summary from the results of the Language Questionnaires which were sent out by the Language Policy subcommittee. A motion was made, seconded, and approved to accept this preliminary report as information.

Dean Schwartz discussed requirements for admission to Graduate School and the various admission catagories. The Council agreed to appoint a committee and chairman to study these requirements. The committee will consist of representatives from each college offering a Master of Science or Master of Arts degrees.

Dean Schwartz discussed briefly information regarding the approval of awarding graduate degrees.

A motion was made, seconded, and approved to adjourn.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

J. M. Stepp (Alumni Prof) delivered the annual Forsyth Memorial Lecture to the faculty and students of the School of Business, Western Carolina University, Cullowhee, N. C. on May 14. The subject of the lecture was "National Economic Policies and Interregional Competition."

BIOCHEMISTRY

J. J. Jen (Asst Prof) presented a seminar, "Biochemical changes in ripening fruits," at Appalachian State University at Boone, N. C. on Mar. 23.

J. T. Long (Grad Stu) and D. M. Henricks (Assoc Prof) presented a seminar on "Effect of Prostaglandin (F_2) on Progesterone Secretion and Fertility in Cows" at the forty-sixth annual meeting of the South Carolina Academy of Science, University of South Carolina, Columbia on Mar. 30.

G. L. Powell (Asst Prof) gave a seminar entitled, "New Wineskins for Old Wine: the Biochemical Basis of Alcoholism" to the departments of Chemistry and Biology at Berry College, Berry, Ga., on Mar. 30.

G. L. Powell gave a paper entitled, "The Stability of the Protein of Acyl Carrier Protein" (Abstract no. 1616) in the Biochemistry Society at the 57th annual meeting of the Federation of American Societies for Experimental Biology on Apr. 17 in Atlantic City, N.J.

J. M. Shively (Prof and Hd) presented a seminar on "Molecular Architecture of Cellular Membranes" to the department of Chemistry, Atlanta University, Atlanta, Ga. on Apr. 9.

J. M. Shively presented a short course for medical students and graduate students on "Biomembranes," department of Biochemistry, Medical University of South Carolina, Charleston, on Mar. 19-23.

J. M. Shively was elected to membership in the American Society of Biological Chemists.

CHEMISTRY

H. G. Spencer (Prof and Hd) and I. M. Ibrahim (former Grad Stu) presented a paper, "Effect of Water Vapor on the Permeability of Permanent Gases across Ethocel Membranes," at the National Science Foundation Symposium on Membranes in Separation Processes, held at Case Western Reserve University, Cleveland, Ohio, May 8-10.

CHEMISTRY (Continued)

Recent publications: "Synthetic Studies Directed Towards the Acorones, a Group of Bicyclic Sesquiterpenes," by A. R. Pinder (Prof), S. J. Price (former Grad Stu) and J. M. Weston (former undergrad), Bull. S.C. Acad. Sci., 34 81 (1972).

COLLEGE OF EDUCATION

Harold F. Landrith (Dean) presented the address at Central Wesleyan College Commencement exercises on May 5. His subject was "The Role of the Church-Related College."

Harold F. Landrith has been appointed Chairman of the Teacher Education and Professional Standards Commission of the South Carolina Education Association.

Harold F. Landrith recently served as a member of the team which conducted the Southern Association re-accreditation evaluation of Memphis State University.

M. A. King (Hd, Dept of Elementary and Secondary Ed) recently chaired the Southern Association visitation committee which conducted the accreditation evaluation of Wren High School, Anderson.

COLLEGE OF PHYSICAL, MATHEMATICAL AND BIOLOGICAL SCIENCES

Two research papers were presented on May 3 at the Thermal Ecology Symposium in Augusta, Ga. by invitation. The Symposium was jointly sponsored by the University of Georgia Savannah River Ecology Lab, the DuPont Company and the Atomic Energy Commission.

"Temperature Influence on Bacterial Populations in Three Aquatic Systems" was co-authored by D. S. Cherry (Zoology Grad Stu), R.K. Guthrie (Assoc Dean), and R. S. Harvey of the DuPont Company.

"A Comparison of Thermal Loading Effects on Bacterial Populations in Polluted and Non-Polluted Aquatic Systems" was co-authored by R. K. Guthrie, D. S. Cherry and R. N. Ferebee (recent Ph.D. grad in Microbiology).

R. K. Guthrie, D. S. Cherry and R. N. Ferebee also presented a research paper at the 73rd annual meeting of the American Society for Microbiology in Miami, Fla. on May 7. The paper was entitled, "Response of Bacterial Populations to Temperature Changes in the Natural Habitat" and is abstracted in Bacteriological Proceedings.

ENGLISH

J. L. Idol (Assoc Prof) has published in the current issue of Studies in Short Fiction a review of The Complete Stories of Flannery O'Connor, edited by Robert Giroux.

C. L. Montgomery (Instr) conducted on campus, Apr. 25, a one-day workshop for high school debaters. Approximately 100 debaters attended this workshop sponsored by the South Carolina Speech Association.

ENGINEERING MECHANICS

E. Harry Law (Asst Prof) has been granted U.S. Patent No. 3,717,104 with Mr. James W. Clark of United Aircraft Research Laboratories. The patent is for an active roll control mechanism and system for use by high speed trains.

ENVIRONMENTAL SYSTEMS ENGINEERING

John H. Austin (Prof and Dir of Continuing Education) administered a Short School for 200 water and wastewater treatment plant operators from South Carolina and neighboring states May 21-24. The Short School, sponsored jointly with the Water and Pollution Control Association of South Carolina, is a review session which precedes the administration of the South Carolina certification exams for Class A, B, C, and D water and wastewater treatment plants operators.

FOOD SCIENCE

M. G. Johnson (Asst Prof) and H. F. Findley, Jr. (Grad Stu) presented a paper entitled, "Effects of Growth Rate in Chemostat and of pH on Sporulation of Clostridium perfringens NCTC 2617 in Batch Subcultures," at the annual American Society for Microbiology meeting in Miami Beach, Fla. on May 6-11.

HISTORY

J. V. Reel (Assoc Prof) presented "Thomas of Lancaster and the Knights of the Shire" to the 8th annual Western Medieval Conference, Western Michigan University, Kalamazoo, Mich. on May 1.

INDUSTRIAL EDUCATION

On Apr. 27, J. Page Crouch (Assoc Prof) and David W. Dailey (Grad Stu) gave a multi-media slide presentation to the board of directors of the Printing Industry of the Carolinas, PICA, at Pawleys Island. The program concerned graphic arts curriculum development work which is sponsored by PICA.

MATHEMATICAL SCIENCES

Joel V. Brawley (Prof) has had the following article recently published: "Enumeration of Matrices with Prescribed Row and Column Sums," Linear Algebra and its Applications, Vol. 6, p. 165 (1973), with L. Carlitz.

Joel V. Brawley delivered a colloquium lecture entitled, "Power Sums of Matrices" at the University of North Carolina at Greensboro on Apr. 25.

Joel V. Brawley representing Clemson University and the Mathematical Association of America spoke at Old Dominion University on Apr. 26-27. On Apr. 26 he spoke on "Algebraic Cryptography" and on Apr. 27 his lecture was entitled "The Gambler's Ruin." The lectures were a part of the M.A.A.'s visiting Lecturer Program.

On May 15, John K. Luedeman (Assoc Prof) gave an invited talk on "History of Mathematics - Descartes and Euler" to the Wade Hampton High School Mathematics Club.

MECHANICAL ENGINEERING

The Journal of Aircraft has accepted a paper for publication by Carl S. Rudisill (Assoc Prof) and Jerry L. Cooper (Monsanto Chemical Co) entitled, "An Automated Procedure for Determining the Flutter Velocity."

ZOOLOGY

William K. Willard (Assoc Prof) chaired the session in Animal Ecology and co-authored a paper presented by Donald S. Cherry (Grad Stu) at the 34th annual meeting of the Association of Southeastern Biologists. The paper presented was entitled, "Temperature Influence on Vertical Distribution and Gonadal Development on Fish Populations in a Reservoir Ecosystem."

Averett S. Tombes (Assoc Prof) presented a seminar entitled, "Endocrinology of Annelids and Insects" to the Biology Dept. of Western Carolina University on Apr. 9.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

Vol. 12 No. 21 June 15, 1973

JUN 15 1973

THOMAS GREEN CLEMSON PAINTING COLLECTION ON EXHIBITION

The Thomas Green Clemson collection of oil paintings will be on exhibition in the Clemson University Alumni Center June 8-22.

This is the first public exhibition of the 25 valuable works since their complete restoration in 1972, made possible by a $5,000 grant from the Clemson Alumni Association.

Art critics have called the collection "a valuable social document that represents the taste of a cultivated gentleman in the first half of the 19th century."

Many of the works were purchased or commissioned by Clemson during his years as U.S. Ambassador to Belgium. The collection includes two impressive landscapes by the young Norwegian painter Thomas Fernly, which were given to Clemson by the Austrian ambassador; "Virgin and Child" from the School of Reubens; and "Peasant Girl Eating Soup," attributed to Jan Hals, the son of Frans Hals.

Most of the paintings are on canvas, one is on copper and several are on wood.

On returning to Washington, D.C., from his ambassadorship, Clemson kept the paintings in his home until the outbreak of the Civil War. The subsequent history of the collection is both confused and confusing.

The collection was boxed and sent by wagon to Harper's Ferry, Pa., where it was stored for a time. Then by difficult stages it found its way to Fort Hill (known also as the Calhoun Mansion at Clemson), losing several works along the way.

Part of the collection was hung in Fort Hill until after the establishment of Clemson University. Some years later 34 pieces from the collection were hung in the old second floor rotunda of Sikes Hall, formerly the university library. Then the entire collection disappeared for several years, to be rediscovered in the early 1950's in the attic and under the boiler of Riggs Hall, home of the College of Engineering.

Since the mid-50's the collection, reduced first to 28 items and then to 25, has been preserved and studied. Not until last year was a full restoration made of the remaining works.

FACULTY AND STAFF INVITED TO HOST FRENCH STUDENTS

Faculty and Staff Members interested in being a host for a French student for the weekend of July 20-21, 1973, should contact Otis Nelson at the Foreign Student Office. These students will be on the campus for 13 days as a part of the Experiment In International Living. They will visit in homes one weekend and remain in the dormitory for the remaining days.

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, MAY 14, 1973

Present: Robert C. Edwards, presiding; Victor Hurst, Walter T. Cox, Stanley G. Nicholas, Melford A. Wilson, H. Morris Cox, J. W. Gordon Gourlay, Claud B. Green, Luther P. Anderson, Leon Roswal, Harold F. Landrith, Melvin C. Long, Harlan E. McClure, W. H. Davis McGregor, Lyle C. Wilcox, John D. Fulton, A. E. Schwartz, E. N. Tyndall, W. D. Trevillian, K. N. Vickery, Henry E. Vogel, S. M. Willis, J. B. McDevitt and A. W. Rigsby, Secretary.

1. Minutes

The minutes of the meeting of April 2, 1973 were approved as submitted.

2. University Calendar -- 1974-75

Recommendation: The University Calendar for 1974-75 is recommended as follows:

First Semester
(74 Class Days)

August 19, 20	Monday, Tuesday A.M. - Orientation, New Students
August 21	Wednesday - Registration, All Students
August 22	Thursday A.M. - Late Registration
August 23	Friday - Late Registration Fee Applies
August 23	Friday - Classes Begin Regular Schedule
August 29	Thursday - Last Day for Registration
August 29	Thursday - Last Day to Add a Subject
September 5	Thursday - Last Day to Order Diploma for Mid-Year Graduation
September 19	Thursday - Last Day to Drop a Subject Without Record of Drop
October 14	Monday - Preliminary Reports Due
November 11-15	Monday-Friday - Preregistration
November 13	Wednesday - Last Day to Withdraw Without Having Grades Recorded
November 13	Wednesday - Last Day to Drop a Subject
November 27	Wednesday - Thanksgiving Holidays Begin After Last Class
December 2	Monday - Classes Resume
December 9	Monday - Examinations Begin
December 19	Thursday - Mid-Year Graduation

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, MAY 14, 1973 (Continued)

Second Semester
(72 Class Days)

January 6	Monday - Orientation, New Students
January 7	Tuesday - Registration, All Students
January 8	Wednesday - Late Registration
January 9	Thursday - Late Registration Fee Applies
January 9	Thursday - Classes Begin Regular Schedule
January 15	Wednesday - Last Day for Registration
January 15	Wednesday - Last Day to Add a Subject
January 22	Wednesday - Last Day to Order Diploma for May Graduation
February 5	Wednesday - Last Day to Drop a Subject Without Record of Drop
March 3	Monday - Preliminary Reports Due
March 14	Friday - Spring Holidays Begin After Last Class
March 24	Monday - Classes Resume
April 4	Friday - Last Day to Withdraw Without Having Grades Recorded
April 4	Friday - Last Day to Drop a Subject
April 9	Wednesday - Honors and Awards Day - Classes Suspended at 12 Noon
April 14-18	Monday-Friday - Preregistration
April 28	Monday - Examinations Begin
May 9	Friday - Commencement

Summer Sessions 1975
(26 Class Days Each Session)

First Session
(Classes Meet Monday - Friday)

May 19	Monday - Registration
May 20	Tuesday - Classes Begin
June 25, 26	Wednesday, Thursday - Examinations

Second Session
(Classes Meet Monday - Friday Except As Indicated)

June 30	Monday - Orientation, New Students
July 1	Tuesday - Registration
July 2	Wednesday - Classes Begin
August 2	Saturday - Classes Meet
August 6, 7	Wednesday, Thursday - Examinations
August 9	Saturday - Graduation

Action: Approved.

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, MAY 14, 1973 (Continued)

3. Curriculum Changes

Statement and Recommendation: The Dean of the University recommends additions, deletions and changes to the curricula, effective when designated on the appropriate request for approval forms as follows:

I. COLLEGE OF ARCHITECTURE

A. New Undergraduate Course

Bl Sc 490	Directed Studies, 1-5 cr.

B. Change in Course Numbers of Graduate Courses

Arch 881	Architectural Structural Seminar, 3 cr. (9 and 0) (Delete Arch 891)
Arch 882	Architectural Structural Seminar, 3 cr. (9 and 0) (Delete Arch 892)
Arch 883	Architectural Structural Seminar, 3 cr. (9 and 0) (Delete Arch 893)
Arch 891	Architectural Thesis, 3-15 cr. (Delete Arch 858)
CRP 891	Planning Thesis, 3-9 cr. (Delete Arch 864)

C. New Graduate Courses

Vis 850	Visual Arts Studio, 3 cr. (0 and 9)
Vis 870	Visual Arts Studio, 6 cr. (1 and 15)

II. COLLEGE OF EDUCATION

A. New Graduate Courses

Ed 669	Characteristics of Children with Emotional Handicaps, 3 cr. (3 and 0)
Ed 670	Characteristics of Children with Learning Disabilities, 3 cr. (3 and 0)
Ed 674	Educational Procedures for Children with Emotional Handicaps, 3 cr. (3 and 0)
Ed 675	Educational Procedures for Children with Learning Disabilities, 3 cr. (3 and 0)

B. Revised Course Title and Description

AdEd 631	Methods in Environmental Education, 3 cr. (3 and 0)

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, MAY 14, 1973 (Continued)

III. COLLEGE OF ENGINEERING

A. New Graduate Course

CE 631	Applied Soil Mechanics, 3 cr. (2 and 2) (Replaces CE 630)

IV. COLLEGE OF PHYSICAL, MATHEMATICAL AND BIOLOGICAL SCIENCES

A. New Undergraduate Courses

Bioch 101	Molecules and Man, 1 cr. (1 and 0)
Bioch 102	Molecules and Man, 1 cr. (1 and 0)

B. New Graduate Course

Bot 631	Introductory Plant Taxonomy, 3 cr. (2 and 3) (Replaces Bot 656)

Action: Approved.

4. Branch Libraries (See Clemson Newsletter, May 15, 1973, p. 13)

Action: Approved.

CALENDAR OF CAMPUS EVENTS

June 16	Sat.	Graduate Record Examination.
June 18- June 23	Mon.- Sat.	Freshman Orientation.
June 27& June 28	Wed.& Thurs.	Examinations.

MINUTES OF UNDERGRADUATE COUNCIL MEETING, APRIL 6, 1973

The Undergraduate Council met in the conference room, E-103 Martin Hall. The following were present: Dean Claud B. Green (Chairman), Luther W. Baxter, Carolyn Briscoe, Lamar H. Brown, Robert L. Cross, Arline M. Duvall, Lawrence W. Gahan, Ralph W. Gilchrist, Peter Lee (Visitor), Jerome V. Reel, Jessup M. Shively (Visitor), Malcolm J. Skove, Chester R. Smith, Rodney Sprott (Student Representative), and Kenneth N. Vickery.

The minutes of the March 2, 1973 meeting were approved as distributed.

College of Architecture

A request for the continuation of the Bachelor of Architecture Degree was presented by Dr. Gilchrist. There was a motion and a second to approve the request on the condition that a complete curriculum for the program be submitted. The motion was approved.

The following course was approved:
Bld Sc 490 Directed Studies, 1-5 cr.
The following course was tabled:
Land Arch 425 Case Studies in Landscape Architecture, 3 cr.

College of Engineering

The following course was tabled:
E&CE 469 Computer Applications for Nonengineers, 2 cr.

College of Liberal Arts

A request for a change in the designation of hours for Eng 301, Public Speaking, and Eng 304, Advanced Composition, was tabled pending further information.

College of Physical, Mathematical and Biological Sciences

The following courses were approved:
Bioch 101 Molecules and Man, 1 cr.
Bioch 102 Molecules and Man, 1 cr.

Dean Green appointed an ad hoc committee consisting of Jerome V. Reel (Chairman), Ralph W. Gilchrist, James H. Hobson, Robert W. McLellan, and John H. Rodgers to study general education requirements and the distinctions between the B.A. and B.S. degrees at Clemson University. The committee report will be presented no later than March 1974.

MINUTES OF UNDERGRADUATE COUNCIL MEETING, APRIL 6, 1973 (Continued)

Dean Vickery reported that the committee on grading standards has met and has developed a student-faculty questionnaire designed to assess present opinion of the current grading system.

AUDIO-VISUAL COMMITTEE MEETING, APRIL 10, 1973

The April meeting of the Audio-Visual Committee was held at 3:00 p.m. in Room 108 Strode Tower. The following members were present: M. W. Jutras, William F. Beckwith, Thomas E. Douglass, Sam Wang, J. F. Allen, James Veitenheimer, Betty P. Watkins, J. C. Hubbard, Jr., Revis Frye.

Chairman Jutras called the meeting to order. The minutes were amended and approved.

Chairman Jutras stated that he had discussed the motion regarding the development of a sample slide/tape presentation with Mr. Harry Durham. The Communications Center has agreed to fulfill this request.

A Communication Center Services sheet was handed to each committee member to review for content. The information will be used in a brochure which will be available in the fall. Chairman Jutras asked Dr. Beckwith to study the content in detail and make recommendations to the subcommittee responsible for the development of the brochure.

Chairman Jutras called on Mr. Frye for a report from the Subcommittee on Software. Mr. Frye stated that he will use information included in the recent AV survey. He asked each member to make a tentative list of software needed by his college which would be interdisciplinary in nature. This information is to be brought to the May meeting.

Chairman Jutras called on Dr. Douglass for a report regarding the AV survey. Ten forms have not been returned. Committee members were asked to contact certain department heads within their respective colleges.

Mr. James Veitenheimer was asked to report on the AV display scheduled for April 27 and April 28. Mr. Veitenheimer stated four distributors plan to have exhibits. Dr. Jutras suggested a follow-up contact to distributors who had not responded. An announcement will be sent to all departments regarding the display.

Dr. Jutras called for new business. There being no new business, the meeting was adjourned at 4:00 p.m.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

L. D. Malphrus (Assoc Prof) participated in a Grain Marketing Symposium which was held in New Orleans, La. on May 1-4, and presented a paper on "Feed Grain Production Trends and Projections."

AGRONOMY AND SOILS

A paper has been published: K. S. LaFleur (Assoc Prof), "Some surface properties of selected South Carolina soils." Soil Science 115: 288-293. This is the sixth and culminating paper of a series directed at characterization of fundamental soil properties: surface area, surface charge, and surface geometry. Such characterization permits extrapolation to genetic and agronomic principles.

BOTANY

C. J. Umphlett (Prof and Hd) has been awarded a grant from Water Resources Research Institute in the amount of $10,000 to support continuing research on aquatic fungi for the biological control of mosquitoes.

C. R. Dillon (Asst Prof) presented a seminar at the Citadel in Charleston on May 2. His topic was "The Ecological Role of Aquatic Vascular Plants."

C. R. Dillon and J. H. Rodgers (Grad Stu) are conducting a part of their research on primary productivity of aquatic plants in thermally stressed streams at the Savannah River Plant in Aiken. The test facilities and financial support for the stream phase of the project are being provided by the DuPont Corporation.

C. R. Dillon and John H. Rodgers attended a symposium on Thermal Ecology on May 3 in Augusta, Ga. The symposium was sponsored by the Savannah River Operations Office of the U.S. Atomic Energy Commission.

CHEMISTRY

J. L. von Rosenberg, Jr. (Assoc Prof) presented a seminar to the Organic Institute, University of Basel, Switzerland, May 18, entitled, "Rearrangement of Alkyl Phenyl Ethers," and on May 23 he presented a seminar to the Physical Institute, University of Basel, Switzerland, entitled "Metal Carbonyl Induced Olefin Isomerization."

COLLEGE OF EDUCATION

At the invitation of the U.S. Office of Education and the South Carolina Department of Education, R. J. Mercer (Assoc Prof of Vocational Education) and L. H. Blanton (Asst Prof of Agricultural Education) participated in a conference at Atlanta, May 10-11 on the evaluation of materials for career education programs dealing with natural resources.

ELECTRICAL AND COMPUTER ENGINEERING

H. J. Helgert (Asst Prof) will present a technical paper entitled, "On Some Classes of Alternant Codes" at the IEEE International Symposium on Information Theory, to be held in Ashekelon, Israel, June 24-30.

ELEMENTARY AND SECONDARY EDUCATION

Frederick C. Raetsch (Asst Prof) and Barbara M. Raetsch (Visit Instr) led an interaction group meeting concerned with "Teaching Reading in the Secondary Schools" at the Southeastern International Reading Association in Louisville, Ky., Feb. 15.

Frederick C. Raetsch participated in a two day pre-convention institute titled "Development, Follow Through and Inservice of a Reading Program-K-12," at the International Reading Association in Denver, Colo., Apr. 30 and May 1.

Thomas H. Parry (Assoc Prof) presented a paper entitled "Ethnical Considerations Involved in the Evaluation of Student Progress in Secondary Schools" at the American Personnel and Guidance Association Convention held in Atlanta, Ga. May 23-27.

Thomas H. Parry served as program chairman for the Association for Measurement and Evaluation in Guidance (Division 7 - APGA) at the American Personnel and Guidance Association Convention held in Atlanta, May 23-27.

Oliver R. Lumpkin (Assoc Prof) presented a paper entitled, "The Role of the Counselor, as a Researcher, in Developing Instructional Programs in Secondary Schools" at the American Personnel and Guidance Convention in Atlanta, May 23-27.

Oliver R. Lumpkin has accepted an invitation to serve as consultant for the State Department of Education of South Carolina, Office of Special Programs, Division of Vocational Education on "Children with Special Needs" at Winthrop College, Aug. 17.

Ralph K. Peden (Asst Prof) presented a paper entitled, "An Interdisciplinary Approach to Career Education for Secondary Schools" at the American Personnel and Guidance Convention in Atlanta, May 23-27.

ENGINEERING RESEARCH

S. F. Hulbert (Assoc Dean), J. J. Klawitter (Asst Prof), and D. M. Bartles (Stu, Medical Univ of SC) presented a paper entitled, "A Quick Screening Test of Biomaterials by Means of Chick Embryo Techniques" at the 5th annual spring meeting of the TMS-AIME in Philadelphia, Pa. on June 1.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Edwin W. King (Prof) participated in the third annual Composting and Waste Recycling Conference in St. Louis, Mo., May 2-4.

G. R. Carner (Asst Prof) and Merle Shepard (Asst Prof) participated in the Insect Control Conference held in Gainesville, Fla., May 28-30.

ENVIRONMENTAL SYSTEMS ENGINEERING

B. C. Dysart (Assoc Prof) participated in an NSF Site visit to the College of Forestry and Natural Resources at Colorado State University, May 22-23. The project under review is funded under NSF's RANN program and is entitled, "Regional Analysis of Grassland Environmental Systems."

B. C. Dysart III presented a seminar for the graduate students and faculty of the Civil and Environmental Engineering Department at the University of Colorado on May 21. The topic was "Modeling and Simulation of the Interaction of Wastewater Treatment Systems and Streams."

MICROBIOLOGY

The following papers were presented by members of the Department of Microbiology at the Seventh-Third annual meeting of the American Society for Microbiology, held at Miami Beach, May 6-11.

"A comparison of Thermal Loading Effects on Bacterial Populations in Polluted and Non-Polluted Aquatic Systems" by R. K. Guthrie (Assoc Dean), D. S. Cherry (Grad Stu, Zoology) and R. N. Ferebee (former Microbiology Grad Stu).

"Effects of Growth Rate in Chemostat and of pH on Sporulation of Clostridium perfringens N C T C 2617 in Batch Subcultures," by H. W. Findley (Grad Stu) and M. G. Johnson (Asst Prof of Food Sci and Microbiology).

"Growth Studies with Methanobacterium ruminantium in Hydrogen Limited Chemostat Culture," by F. M. DeWork (Belle Baruch Fellow) and M. J. B. Paynter (Assoc Prof and Hd).

MICROBIOLOGY (Continued)

At this same meeting Ann W. Baxter (Assoc Prof), in the capacity of National Councilor at Large, participated in the annual meeting of the Council of the American Society for Microbiology. Dr. Baxter, as a member of the Society's Board of Education and Training, participated in the meeting of this group.

J. H. Bond (Assoc Prof) represented the South Carolina Branch of the American Society for Microbiology at the National Council meeting, and as President of the South Carolina branch of the society he represented the State organization at the meeting of Branch Presidents and Secretaries.

PHYSICS AND ASTRONOMY

John R. Ray (Assoc Prof) had a paper published in Acta Physica Polonica B. Vol. B4 page 151, Jan.-Feb. 1973 entitled, "A Note on the Lagrangian Density for Fluid Systems in General Relativity II."

W. E. Gettys (Prof) recently had a paper published in the American Journal of Physics, Vol. 41, pp. 670-677, entitled, "Quantum Theory of a Square Well Plus Delta Function Potential."

John R. Ray participated in an NSF sponsored institute on High Energy Physics in DeKalb, Ill., June 4-15.

PLANT PATHOLOGY AND PHYSIOLOGY

A paper, "Benomyl, A Promising Chemical for Leaf Diseases of Redcedar and Arizona Cypress" was published in the Plant Disease Reporter, Vol. 57, pp. 315-318 by Wesley Witcher (Prof), L. W. Baxter (Prof), and S. A. Marbut (Asst Prof, Forestry).

A paper, "Changes in Microbial Populations in Paraquat-Treated Soil," by N. D. Camper (Assoc Prof), E. A. Moherek, and Jannie Huffman was published in Weed Research, Vol. 13, pp. 267-269.

A paper, "Camellias Are For Everyone," was published by L. W. Baxter in Carolina Camellias, Vol. 25(2), pp. 14-17.

L. W. Baxter presented a paper, "A New Method of Controlling Powdery Mildew of Zinnia elegans Jacq." at the annual meeting of the South Carolina Academy of Science in Columbia, Mar. 31.

PLANT PATHOLOGY AND PHYSIOLOGY (Continued)

W. M. Dowler, Chairman of the tri-state work group on peach tree short life, attended a meeting of the group at Byron, Ga., Apr. 25-26. The scientists from N. C., Ga., and S.C. agreed on ten points that will aid in alleviating peach tree short life.

W. M. Dowler (Lect) presented a paper, "Characterization of Green Fluorescent Pseudomonads Isolated from Apparently Healthy Dormant Peach-Trees," at the spring meeting of the South Carolina Branch of the American Society for Microbiology held Mar. 9 at Furman University.

L. W. Baxter presented two papers, "Inducement of Asexual Sporulation by Physical Means in the Camellia Isolate of the Fungus, Glomerella cingulata," and "Homothallism in Single Cells of the Multicelled Ascospore of Leptosphaerulina trifolii" at the annual meeting of the Association of Southeastern Biologists at Bowling Green, Ky., Apr. 12-14.

POULTRY SCIENCE

S. M. Hou (Grad Asst), M. A. Boone (Prof) and J. T. Long (Prof, E&CE) published an article, "An Electrophysiological Study on the Hearing and Vocalization in Gallus domesticus," in the most recent issue of Poultry Science.

TEXTILE DEPARTMENT

E. I. Stearns (Prof and Hd) served as general chairman of the 13th Cotton Utilization Research Conference at the Southern Regional Research Laboratories held at New Orleans, May 14-16. In this capacity, he gave the opening talk on "The Future of Cotton" and gave a closing summary.

Donald W. Lyons (Assoc Prof) was elected to the office of vice chairman and chairman elect of the Textile Engineering Division of the American Society of Mechanical Engineers.

Donald W. Lyons presented a paper concerning South Carolina's safety and health regulations at the meeting of the South Carolina Food Industry Association, Myrtle Beach.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

CLEMSON UNIVERSITY LIBRARY
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JUL 2 1973

Vol. 12 No. 22 July 1, 1973

"PEDESTRIAN CAMPUS" EFFECTIVE AT CLEMSON JULY 5

The central area of the Clemson campus will be closed to vehicular traffic from 8:00 a.m. to 4:30 p.m. weekdays beginning July 5. This change, in effect, will make Clemson a "pedestrian campus."

According to Robert D. Eflin, Clemson University Master Planner, the pedestrian campus will be used on a trial basis during the second session of summer school to determine any needed modifications and then implemented on a permanent basis beginning fall semester. (Continued on page 2.)

This map shows division of campus into east and west areas. The Library is approximately at the center of the campus. The striped areas of Calhoun Drive and Palmetto Boulevard indicate the areas which will be closed to traffic.

"PEDESTRIAN CAMPUS" Continued

The change will allow pedestrian traffic unhampered movement between the east and west areas of the campus during class hours. This move follows several years' study of the traffic flow within the campus area and was recommended in the Clemson University Self Study.

To put the plan into effect, Calhoun Drive will be closed at both ends of Brackett Hall. South Palmetto Boulevard will be closed at the east parking entrance to the Library and at the west parking entrance to the Library.

Eflin said the transformation to a pedestrian campus is, "one step toward implementing more orderly and more easily understood Parking Plan for students, faculty and staff and visitors to the University." New parking arrangements for both resident and commuter students will be implemented next semester. Staff and faculty parking remains essentially the same. However, many people whose offices are located near the center of the campus may need to consider a different approach when coming to work. The Parking Plan calls for a free flow of traffic around the campus, using internal streets and arteries for access only, rather than through routes. The accompanying map indicates these main arteries. Check to see if your normal parking area is on west or east campus; then check the best route from your home using roads which encircle the campus.

"Though the changes we are making may seem confusing at first," Eflin said, " we believe that the ultimate result will make the Clemson campus more easily accessible to everyone."

TEMPORARY PARKING PROBLEMS EXIST IN JOHNSTONE/TILLMAN AREA

Faculty and staff accustomed to parking in the lot adjacent to Tillman Hall will suffer some inconvenience during the construction of the University Union Phase II in the quadrangle area of Johnstone Hall. Because of the need for access to that area by heavy construction equipment this lot must be closed. According to Master Planner Robert D. Eflin, alternatives to this parking area near Tillman are under study and relief is hoped for in the near future.

"LOW COUNTRY LIVING" RECEIVES NATIONAL AWARD

An 11 minute program prepared for "Low Country Living" presented by the Clemson Extension Service and WCSC-TV in Charleston won a blue ribbon in the American Association of Agricultural College Editors video tape national competition. The show, hosted by Bob Austin and Ann Lee McPhail of the University Communications Center, scored 283 of a possible 300 points. The award will be given at the AAACE meeting in Canada July 9.

GIFTS AND GRANTS SUMMARY:
$900,000 DURING PAST SIX WEEKS

Clemson University has been awarded more than $900,000 in grants, contracts and scholarship funds during the past six weeks.

Largest single award was $500,000 from the Appalachian Regional Commission to be applied toward construction of a $3.3-million biological sciences building.

Other awards include:

-- $245,069 from the National Institutes of Health, including a $234,860 contract (National Institute of Dental Research) to the engineering division of interdisciplinary studies to evaluate the effect of various materials on the acceptability of artificial teeth implanted into laboratory animals; and $10,209 for continuation of a chemical engineering study of oxygen transport to brain tissues.

-- $40,100 from the National Science Foundation for a physics department study of superconductivity (electrical conductivity under extreme cold) and charging effects in thin films.

-- $38,000 in equipment, an Investa Open-End Spinning Frame, to the textiles department from Burlington Madison Yarn Co. of Burlington Industries, Inc.

-- $28,749 from the U.S. Army Medical Research and Development Command for continuation of a mechanical engineering department development of a carbon dioxide "gun" for use in surgical treatment of wounds and burns.

-- $19,909 to the industrial education department for a six-week summer institute for trade and industrial education teachers. The grant is from federal Education Professions Development Act funds awarded through the S.C. State Department of Education's Vocational Education Division.

-- $14,257 from the State Board for Technical and Comprehensive Education for a program to develop career opportunities in the public sector for the disadvantaged.

-- $12,500 for student aid, including $6,000 for the first Eastman Kodak Research Fellowship in chemistry at Clemson; $3,500 from the Albert B. Carr Trust (Atlanta) for scholarships; $1,500 from Allied Chemical Corp. for equal value scholarships in textile chemistry and textile engineering; and $1,500 from Owens-Corning Fiberglas Corp. for the 1973-74 Owens-Corning Fiberglas scholarship fund.

-- $1,000 from Union Carbide Corp. for electronic ceramic research activities, and a $1,000 unrestricted grant from Burlington Industries Foundation, Greensboro, N.C.

EDUCATIONAL COUNCIL MINUTES, JUNE 11, 1973

Present: Robert C. Edwards, presiding; Victor Hurst, Stanley G. Nicholas, H. Morris Cox, J. W. Gordon Gourlay, Claud B. Green, Luther P. Anderson, Geraldine Labecki, Harold F. Landrith, Melvin C. Long, Harlan E. McClure, W. H. Davis McGregor, Lyle C. Wilcox, John D. Fulton, A. E. Schwartz, W. D. Trevillian, E. N. Tyndall, K. N. Vickery, Henry E. Vogel, S. M. Willis, J. B. McDevitt and A. W. Rigsby, Secretary.

1. Minutes

The minutes of the meeting of May 14, 1973 were approved as submitted.

2. Curriculum Changes

Statement and Recommendation: The Dean of the University recommends additions and changes to the curricula, effective when designated on the appropriate Request for Approval forms as follows:

I. COLLEGE OF AGRICULTURAL SCIENCES

(A) Title Change

Ent 860	Insect Pest Management (formerly called Principles of Insect Control)	3 cr. (3 and 0)

II. COLLEGE OF ENGINEERING

(A) New Graduate Courses

SE 891	Research	Credit to be arranged
SE 991	Doctoral Research	Credit to be arranged

Action: Approved

EDUCATIONAL COUNCIL MINUTES, JUNE 11, 1973 (Continued)

3. Continuing Education Unit (CEU)

Statement and Recommendation: The Extension Council proposed and the Dean of the University recommends that effective July 1, 1973 Clemson University adopt a Continuing Education Unit (CEU) as a measure of the offering of non-credit classes, courses, and programs, with the CEU - program to be coordinated by the Dean of University Extension.

Action: Approved.

4. Policy for Awarding the Bachelor's Degree to Preprofessional Degree Students

Statement: On March 22, 1961 the Board of Trustees adopted a policy discontinuing the awarding of bachelor's degrees to students who had completed three years of premedical education. Prior to that time degrees were awarded to such students combining work accomplished in the professional school with that accomplished at Clemson University to meet the requirements for the awarding of a bachelor's degree by Clemson University. Subsequent developments in educational philosophy indicate the desirability of eliminating in some instances the prohibition against earning an undergraduate degree in combination with professional study. It is believed that a change of policy would be advantageous to the University and would recognize entitlement on the part of the individual. A detailed study by the administration, with a view to formulating and implementing a fair and equitable procedure, should be made.

Recommendation:

(1) That the policy entitled "Discontinuance of Special Three-year Pre-Medical Policy for the Bachelor's Degree" adopted by the Board of Trustees on March 22, 1961 be rescinded; and

(2) That the administration be authorized to formulate and implement fair and equitable procedures for awarding the bachelor's degree to students who have attended Clemson University and who later enroll in an accredited, post-graduate professional college or university.

Action: Approved.

A. W. Rigsby
Secretary

MINUTES OF THE UNIVERSITY EXTENSION COUNCIL, APRIL 27, 1973

With Dean Sam M. Willis presiding, the University Extension Council met in E-103 Martin Hall at 2:15 on Friday, April 27, 1973, the following members present: N. R. Bauld, H. R. Holman, David Howe, G. D. Kessler, B. S. Lawrimore, Stanley Lukawecki, Carolyn Meares, C. N. Nolan, M. A. Packer, F. T. Simon, M. A. Teklits, George von Tungeln, and J. R. Washburn.

Dean Willis reported on repeated unsuccessful attempts made by members of the University administration to get any guidelines on the Continuing Education Unit from Southern Association officials. Because some divisions of the University have already been in need of the CEU, Dean Willis will recommend to Dean Victor Hurst that the original recommendation (published in the minutes of January 19, 1973, in the March 1 Newsletter) be implemented on July 1. In discussion that followed, it was made clear that whatever may develop later, the CEU now has no implication for Full Time Equivalents and possible budget funding by formula. The Council warmly endorsed Dean Willis's action.

On the Continuing Education Center, Dean Willis reported that the appropriation has not yet been funded but is in process with good prospects of approval. A planning committee named by President Edwards consists of Dean Willis as chairman, two student representatives to be appointed by the Office of Student Affairs, and Luther P. Anderson, Gene Cathcart, H. Morris Cox, Walter T. Cox, Harry Durham, James L. Edwards, Robert D. Eflin, Henry Hill, Geraldine Labecki, Harold F. Landrith, Melvin Long, Harlan E. McClure, W. H. Davis McGregor, Stanley G. Nicholas, James L. Strom, Wallace D. Trevillian, Henry E. Vogel, and Melford A. Wilson.

The next scheduled meeting will be after the beginning of the fall semester. Council was adjourned at 3:05.

Harriet R. Holman
Secretary

Sam M. Willis,
Chairman

1973-74 FACULTY SENATE MEETING SCHEDULE AND COMMITTEE ASSIGNMENTS

The Advisory Committee of our Faculty Senate met on Thursday, April 19 and decided the following concerning standing committee membership and meeting schedules for the Senate term May, 1973, through April, 1974.

1. Meetings. All meetings will be held in Olin Hall auditorium promptly at 4:15 p. m. Except for the August meeting, the Faculty Senate will meet on the second Tuesday of each month. Other meetings will be as called.

Schedule of Regular Meetings

May 8, 1973
June 12, 1973
July 10, 1973
August 21, 1973
September 11, 1973
October 9, 1973
November 13, 1973
December 11, 1973
January 8, 1974
February 12, 1974
March 12, 1974
April 9, 1974

2. Committee Assignments

Admissions and Scholarship:
W. F. Steirer, Jr., Chairman
W. E. Johnston
G. C. Skelley
K. E. Carpenter
L. T. Fitch
A. L. Recoulley
M. A. Kelly
K. T. Wallenius

Research:
N. R. Bauld, Chairman
J. R. Hill
T. R. Adkins, Jr.
J. E. Matthews
A. R. Abernathy
A. H. Holt
M. D. Sherrill
O. J. Jacobus

Policy:
T. E. Skelton, Chairman
D. O. Ezell
F. H. Hedden
H. J. Grove
C. W. Roberts
E. P. Arnold
R. J. Knapp
P. T. Holmes

Welfare:
C. R. Dillon, Chairman
V. D. Carmack
G. D. O'Dell
W. Baron
R. L. Cross
J. Y. Lebourgeois
S. Sullivan
W. F. Beckwith

MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 8, 1973

President Fulton called the meeting to order at 4:15 p.m. Following a recommendation from former President Rogers, the Resolution of Appreciation for the Hunter gift was reworded, and the minutes of the April 10 meeting were approved as corrected.

President's Report

President Fulton announced that Professor Wallenius had resigned, his replacement will be elected for two years.

President Fulton, following a request from Dean Green that an abbreviated version of the Senate minutes be submitted to the Newsletter in order to economize on costs, suggested that only resolutions and amendments passed by the Senate be included in full, with synopses of those rejected, tabled, postponed, or referred to a committee. He further recommended that resolutions be named and numbered for easier reference. Numbering would take the form of FS-73-5-1, for the first resolution presented at the May 1973 meeting. Professors Wallenius and Abernathy urged that the full minutes be printed. Professor Sherrill pointed out that readers might prefer brevity and agreed with Professor Cross that the full minutes could be made available to anyone who requested them. Professor Carpenter argued that abbreviation was acceptable provided that the Senate did the abbreviating. Professor Baron then introduced a RESOLUTION ON PUBLICATION OF MINUTES (FS-73-5-1):

> Publication of the Senate minutes should be left at the discretion of the President and the Secretary of the Senate.

The motion was seconded and carried with only one negative vote. Professor Beckwith suggested that a depository of the minutes be provided in the library; Professor Fulton will investigate this possibility.

President Fulton reported on the meeting of the Advisory Committee. It had established the meeting schedule for the Senate for the coming year; as in the past, the Senate will meet at 4:15 on the second Tuesday of each month, except in August when it will meet on the third Tuesday. Assignments for the Senate standing committees were also made for the coming year:

Admissions and Scholarship: Steirer (Chairman), Carpenter, Fitch, Johnston, Kelly, Recoulley, Skelley, Wallenius; Policy: Skelton (Chairman), Arnold, Ezell, Grove, Hedden, Holmes, Knapp, Roberts; Research: Bauld (Chairman), Abernathy, Adkins, Hill, Holt, Jacobus, Matthews, Sherrill; Welfare: Dillon (Chairman), Baron, Beckwith, Carmack, Cross, Lebourgeois, O'Dell, Sullivan.

President Fulton reported on the April 24 meeting of the Athletic Council. The Council has requested from coaches weekly schedules of use of the athletic facilities by the University teams so their times of availability for student and staff use will be known. President Edwards had pointed out that the University

MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 8, 1973 (Continued)

cannot provide facilities for the whole town. After the coming year, the basketball camp will not be held in Fike Field House while the students are here. A program of Lifetime Sports has been approved for the students to be offered by the College of Forest and Recreation Resources. Faculty tickets for the coming year cost more due to additional basketball games.

President Fulton also reported that President Edwards had expressed his concern about the ACC minimum requirements for athletic scholarships which put the members at a disadvantage compared with other conferences. The NCAA has new rules which permit only use of a 2.0 average on high school work to be used as minimum in screening athletes. Among the NCAA athletic conferences in the U.S., only the ACC also has retained the requirement of a 1.6 predicted GPR. Retention of this rule resulted from the Presidents of Duke and three other ACC schools, apparently taken without consultation with their respective faculties. Dean Vickery had also predicted reorganization of the NCAA into two groups -- one for colleges, the other for universities.

President Fulton announced that the membership of the Student Relations Committee had been determined for the coming year; the three Senate members are: Steirer (Chairman), West, Jacobus.

On previous action taken by the Senate, President Fulton reported that the Traffic and Parking Committee had endorsed the Faculty Senate resolution recommending the substantial curtailment of reserved parking permits; the matter is now being considered by the Executive officers. The resolution on approval of graduate degrees is being considered now by the Graduate Council. Professors Fulton and West had met with the Vice President for Business and Finance, Melford A. Wilson, regarding the 1972-73 University budget to obtain an explanation regarding the indicated recent increase in expenditures for faculty salaries.

President Fulton announced that he would pursue the policy recommended by the Senate's 1971-72 Ad Hoc Committee on the Book Store in determining that the timetable for ordering materials from the Book Store is being met. Professor Shannon pointed out that, under the present schedule, books must be ordered before a computer printout has assured that all courses will be offered; this means that orders have to be changed. Professor Fulton will look into the matter and perhaps suggest that preregistration be held earlier.

At the invitation of President Fulton, Professor M. W. Jutras addressed the Senate. Professor Jutras had met recently with President Edwards. He had a subsequent meeting on April 16 with the University Deans on the same matters. Some faculty members had come to him with complaints, and based on his eight years of experience here, he said that he had found that it seemed that the only way to get anything done at Clemson was to go to the President. Insisting that he did not seek equal pay for faculty members, he stated that there are "gross

MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 8, 1973 (Continued)

inequities" in faculty salaries at the University, particularly between departments at the levels of Associate Professor and Professor. The inequities, he asserted, were due simply to the fact that some faculty members are not paid according to their productivity, the basis which should be used in determining their salaries.

Professor Jutras stated that University administrators are aware of some of the inequities. Some, for example, are due to the fact that promotions over the last six years have not been accompanied with appropriate pay increases. Promotions have also been granted without tenure, he said, a practice frowned upon by the AAUP. However, he pointed out, the academic administration generally lacks accurate information. Whereas department heads used to be blamed for inequities, the blame now has shifted to the deans. He claimed there is a general lack of confidence in the administration. No one, he stressed, believes that the new administrative positions which have been established have proven useful to faculty members. Further, he said that administrators are generally "terrified" of their superiors.

Only two deans, Professor Jutras stated, will fight for their faculty members "come hell or high water." There is also a prevailing tendency to ignore policies stipulated by the new Faculty Manual. This surprised Professor Jutras, since General Rigsby has stated that the Manual is a legal document which administrators are obligated to follow. The failures of deans to support their faculties and to apply the Faculty Manual, he stated, were particularly apparent regarding extension faculty.

Professor Jutras then recommended several means whereby the University might save money: (1) don't create new positions; (2) program expansion is too rapid and often ill-conceived; consolidate and create new ones out of old areas; (3) eliminate useless programs; (4) remove incompetent faculty members; (5) see that department heads consult with upper level faculty members about promotions; (6) reduce bureaucracy, which tends to increase the amount of work instead of reducing it. He also urged that faculty evaluation of administrators be implemented. The administrators, he said, are experts at administering things, but not at administering people.

Professor Jutras' remarks were greeted by applause from the Senate.

President Fulton referred to the printed remarks, circulated among the Senators, which he had made after hearing Professor Jutras' presentation to the Deans. He prepared the remarks, he said, because he had not had the opportunity to speak at the meeting of the Deans following Professor Jutras' remarks. Professor Adkins argued that Professor Fulton ought not to have distributed them under his title as Senate President. President Fulton stated that he had had license from the Advisory Committee to prepare such a statement. Professor Carpenter pointed out that President Fulton's presence at the meeting of the Deans entitled him to make remarks about Professor Jutras' statements. Professor Wallenius noted in concurrence that

MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 8, 1973 (Continued)

President Fulton's remarks were made in the first person and obviously he therefore did not necessarily speak for the entire Senate. Professor Steirer stated that the Senate President must "speak for the Faculty Senate at all times," especially when someone else claims to speak for the faculty.

In response to Professor Roberts' statement that his remarks sounded like they were based on the AAUP's efforts to organize faculty members, Professor Jutras stated that he "did not want to organize the faculty." Professor Sherrill urged that Professor Jutras write out his remarks if he wished to avoid misrepresentation. Professor Wallenius pointed out that unions, too, have many inequities; their members are often well-paid but unproductive. He also argued that going through the chain of command can be useful in developing ideas. Professor Holt stated that the AAUP has unionized faculties "only reluctantly" when it appeared that other organizations were about to move in.

Professor Steirer, referring to the University Self Study disclosures, stated that Professor Jutras' statements were only more in "a long series of continuing indictments against inequities." Needed now are methods whereby we can assure that the Manual is being followed. Moreover, Professor Steirer added, we need some guideline in order to discover who is productive and who is not. "Inequities in one man's mind may be a fair differential in the mind of another," Professor Steirer said.

Professor Jutras responded that he had recommended such guidelines when he had urged that senior professors be consulted by department heads when granting tenure and promotions as required by the Faculty Manual, that rules requiring 3 1/2% to 5 1/2% salary increased be loosened up, and that, in general, we look at ways to save money so that necessary raises can be afforded.

Committee Reports

Prof. Steirer for the Admissions and Scholarship Committee introduced a RESOLUTION ON CLASS ATTENDANCE REGULATIONS (FS-73-5-2).

Be it resolved that:

1. Regular and punctual attendance at all class and laboratory sessions is the responsibility of each student. College work proceeds at such a pace that regular attendance is necessary in order for each student to obtain maximum benefits from instruction. In the event that a student finds it necessary to absent himself from a class, it is his responsibility to make up resulting deficiencies through extra study and through contact outside of class by arrangement with the instructor concerned.

2. Absences from classes will be excused for the reason listed below when certified by the proper authority.

REASON	REQUIRED ACTION FOR APPROVAL OF ABSENCE
Hospitalization as in-patient	Certificate will be issued indicating time of admission and discharge
Official representation in intercollegiate athletic events	Absence certified by the Athletic Director, or by the Office of Student Affairs
Educational trips Participation in other activities considered to be official and authorized by the Educational Council	Absence certified by the Dean of the School or College concerned, or by the Office of Student Affairs
ROTC Physical Examinations and trips	Absence certified by the Dean of Education
Personal emergencies of a serious nature such as death or serious illness in the family	Absence certified by the Office of Student Affairs

It will be the duty of the persons authorizing absences listed above to furnish the student proof of such authorization so the student can present same to the instructor preferably prior to the absences but in no case later than one week after the absence unless an extension of time is approved by the Office of Student Affairs and the instructor concerned. A student will be permitted to make up at the convenience of the instructor involved any work missed during any of the absences listed above.

3. When any full-time student reduces his credit load below twelve hours, but is still carrying nine or more hours, he may be suspended for at least the remainder of the semester upon recommendation of the Vice President for Student Affairs and approval of the President. When a student reduces his credit load below nine hours, he shall be suspended for at least the remainder of the semester.

4. Students desiring to withdraw from a class shall secure a drop card from the Registrar's Office prior to terminating attendance.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 8, 1973 (Continued)

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MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 8, 1973 (Continued)

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MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 8, 1973 (Continued)

Passed by the Student Senate and the AFSC, this resolution was also passed by the Faculty Senate and is expected to be printed in the new Student Handbook. It revises paragraph 1 of the current Regulation (found on pages 186-190 of the Handbook) and omits paragraphs 3, 4, 7 and 8. Professor Steirer noted that there is now going to be no provision for faculty members to drop students who fail to attend classes; a faculty member can give an F for non-attendance, but Professor Steirer urged that faculty members announce this possibility to students. In general, the newly recommended Class Attendance Regulations seem to give more freedom to individual faculty members to set their own attendance regulations. However, there was some feeling that several points need to be clarified. Attempts to recommend such clarifications, especially the new section 3, will be considered during the coming year by the Senate's Admissions and Scholarship Committee.

For the Welfare Committee Professor Dillon moved the adoption of the RESOLUTION OF ANNUAL LEAVE (VACATION) (FS-73-5-3) for full-time employees.

The employment of full-time members of the teaching faculty for the regular two-semester academic session presumes ample time for vacation in the summer interval between sessions, at the Christmas interval between semesters, and during the spring vacation. No annual leave is provided. Teachers may be called on to return to active duty sufficiently in advance of the opening of a new session for preparation for that season. Each academic session officially begins August 15 and ends May 16.

For faculty members employed for 12 months, the following policy statements on annual leave (vacation) will apply.

The leave year shall begin on January 1 and end on December 31.

Annual leave (vacation) shall accrue at the rate of 24 working days per year but not more than 45 days may be carried forward into a new leave year. Leave accrues continuously at the rate of 2 days per month.

Emergency leave may be authorized by the Vice President for Academic Affairs, and advance leave up to 9 working days may be taken without loss of pay. In the event a faculty member resigns with a negative leave balance, his final pay check shall be reduced by the value of any leave used in excess of the amount accrued.

Requests for use of annual leave (vacation) must be submitted far enough in advance of actual need to assure prior approval by proper administrative authorities. Vacations shall be scheduled during periods of low workload to the extent practicable and shall be distributed in a manner to promote efficient operation of each activity.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 8, 1973 (Continued)

> Annual leave shall not be used for absence due to illness unless all accumulated sick leave has been exhausted, after which accrued annual leave may be utilized.
>
> Annual leave shall accrue to a faculty member while in a leave-with-pay status, provided he returns to duty. Annual leave does not accrue during periods of leave without pay, or during terminal leave.
>
> A regular employee who is separated, regardless of the reason therefor, after completing six months of continuous employment, shall be paid in a lump sum supplement to his final regular payment, the value of annual leave accrued but not taken, as of his final day at work; provided, that no such payment for unused annual leave shall exceed the value of the maximum number of days permitted by State Law.

The resolution was passed unanimously by the Senate. Professor Dillon stated that his committee has set up a subcommittee to investigate Professor Baron's amendment which would apply the same rules to nine-month faculty; after polling nine-month faculty over the next nine months, the committee will submit a resolution on this matter.

Professor Holmes moved the adoption of a RESOLUTION COMMENDING THE AD HOC FACULTY COMMITTEE ON RETIREMENT (FS-73-5-4).

> Be it resolved that the Faculty Senate highly commends the efforts of the Ad Hoc Faculty Committee on Retirement (Dr. E. L. McLean, College of Agricultural Sciences; Professor Lamar Brown, College of Architecture; Dr. Gordon W. Gray, College of Education; Dr. Eugene Harrison, College of Engineering; Professor N. B. Goebel, College of Forest and Recreation Resources; Dr. J. M. Wannamaker, College of Industrial Management and Textile Science; Dr. Jerome V. Reel, Jr., College of Liberal Arts; Professor Elizabeth J. Hall, College of Nursing; and Dr. K. T. Wallenius, Chairman, College of Physical, Mathematical and Biological Sciences) in preparing their recent report on retirement.
>
> Be it further resolved that the Faculty Senate urges strong and vigorous executive action by the University toward the implementation of the Committee's recommendations.

The resolution passed unanimously. This committee report points out the advantages of TIAA. CREF and Pilot Life Insurance programs over the present mandatory South Carolina Retirement System. Professor Wallenius stated that he believes that the prospects for change have improved; Governor West, among others, has expressed concern about the matter of the retirement program presently available for college and university faculty members who are state employees.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 8, 1973 (Continued)

Old Business

President Fulton reported that, although additional cars have been promised for the Motor Pool sometime after August 1, there may still be additional problems concerning motor pool operation policies which need investigation. Professor West introduced a RESOLUTION TO REINSTATE THE AD HOC COMMITTEE ON THE MOTOR POOL (FS-73-5-5).

> Be it resolved that the Ad Hoc Committee on the Motor Pool be reinstated to review the operational policies of the Motor Pool.

His motion carried. President Fulton will establish such a committee in consultation with the Advisory Committee.

New Business

Professor Jacobus stated that, with sufficient fund, with additional personnel, and with sufficient renovation or construction, the Redfern Health Center could provide health care for faculty members. In particular, there could be an annual voluntary physical examination. He moved the adoption of the RESOLUTION ON REDFERN (FS-73-5-6).

> Whereas the maintenance of the general health of the individuals of an academic community is paramount to the uninterrupted functioning of the University, and
>
> Whereas total health care is presently afforded to a large segment of the University community, and
>
> Whereas the currently available facilities of Redfern Health Center are adequate to afford health care for the entire academic community, be it
>
> Resolved that all members of the University be afforded equal opportunity to avail themselves of the facilities of Redfern Health Center.

The resolution was adopted unanimously.

Professor Roberts moved the adoption of a RESOLUTION ON REVISION OF THE STUDENT RELATIONS COMMITTEE (FS-73-5-7), which recommended that students try to resolve grievances through the "traditional procedures" involving the faculty member, department head, and dean; that proper protection be provided to faculty members and students involved in grievance procedures; and that, until appropriate action can be taken, the Student Relations Committee be suspended.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 8, 1973 (Continued)

Professor Steirer, the new chairman of this committee, pointed out that in only three cases have faculty members been bitter about the actions of the Committee; several faculty members, on the other hand, have praised it. The committee, he stated, is not a judicial body but simply tries to provide justice based on the facts of the particular case. He denied that the committee's methods are "secretive" but, he stated, they are "confidential." All parties to a grievance know of all activities of the committee relative to the grievance. However, the committee is bound not to publicize its activities. The faculty member does have the right to appeal to Dean Hurst. Professor Steirer felt that, in some instances, the faculty member would be better served if the grievance were not called to the attention of the faculty member's department head or his dean. He also pointed out that in many cases the Committee has taken no action at all, because, when the student was requested to put his grievance in writing or to discuss the matter with his instructor, he was heard from no more.

Professor Roberts argued that the need for protection was important and offered an amendment to his resolution which would create a special committee to include some persons with legal backgrounds for the purpose of recommending changes in the procedures of the Student Relations Committee. President Fulton, who had served as Chairman of this committee, turned over the chair to Vice President West. Professor Fulton pointed out that the committee has no power, invokes no penalties, keeps its activities confidential, and, therefore poses no threat to a faculty member. It simply provides some arbitration machinery. Previously, a student with a grievance had to go to a department head, to Dean Walter Cox, or to President Edwards to seek redress. Several Senators indicated a desire to have the Committee studied. However, the amendment was defeated, and when brought to a vote, the resolution itself was defeated.

The meeting adjourned at 7:10 p.m.

Russell D. Shannon, Secretary

Member absent: N. R. Bauld

ENGLISH

Richard A. Underwood (Asst Prof) published "Teacher Was a Spy," in the June issue of Sandlapper. The subject of the article is Robert Mixon, Assistant Professor of Spanish.

MINUTES OF THE COMPUTER ADVISORY COMMITTEE MEETING, APRIL 5, 1973

Present: J. C. Peck, presiding; J. L. Clark, G. E. Howard, W. E. Johnston, L. M. Lundberg, M. C. Palmer, S. Rockwell, P. B. Ross, Jr., A. E. Schwartz, M. L. Wolla, R. F. Zant, and R. E. Chapel, Secretary.

1. The minutes of the previous meeting were approved as submitted.

2. Dr. Peck announced the formation of the following subcommittees.

Technical Advisory Subcommittee

Responsibilities: To assist in long-range planning concerning computer hardware and staff requirements in the Computer Center.

Members:
1. Prof. J. R. Lambert, Chairman - Agri. Engr.
2. Mr. R. Schouest - Computer Center
3. Dr. J. N. Gowdy - Electrical and Computer Engr.
4. Dr. W. E. Gettys - Physics
5. Dr. J. C. Peck - Mathematics

Operations Subcommittee

Responsibilities: To make recommendations regarding operational procedures and the acquisition of software packages.

Members:
1. Dr. R. F. Zant, Chairman - Industrial Mgt.
2. Miss Lois Lundberg - Mathematics
3. Mr. Philip A. Ross - Chemical Engineering
4. Colonel A. B. Marx - Admissions and Registration
5. Mr. C. E. Woodall - Business and Finance
6. Dr. J. S. Lytle - Agri. Economics and Rural Soc.
7. Dr. A. G. Law - Engineering Mechanics
8. Dr. J. C. Peck - Mathematics
9. Mr. J. A. Slaton - Computer Center

Non-Centralized Computing Facilities Subcommittee

Responsibilities: To advise university users on availability and capability of non-centralized computer facilities. Primary facilities include self-contained digital, analog, and hybrid computers not directly linked to the centralized university facility.

MINUTES OF THE COMPUTER ADVISORY COMMITTEE MEETING, APRIL 5, 1973 (Continued

Members:
1. Dr. M. L. Wolla, Chairman - Elec. and Computer Engr.
2. Dr. D. P. Miller - Physics
3. Dr. F. T. Simon - Textiles
4. Dr. D. F. Bruley - Chemical Engineering
5. Mr. W. L. Grayson - Economics
6. Dr. J. C. Peck - Mathematics

3. Dr. Zant reported on the first meeting of the Operations Subcommittee, held March 14. Discussions ensued on the following topics.

ALLOCATION OF COMPUTING RESOURCES

The problem of equitable allocation of resources was discussed at length. There was general agreement that the existing lack of controls fosters misuse of computing facilities, but that imposition of constraints, e.g., a computer use budget for each college, can create a new set of problems. The need for a more refined system of accounting for use of computing resources was expressed. It was suggested that project reviews and technical reviews might be effective in limiting excessive computing in graduate research.

The committee suggested that the operations subcommittee, which had recommended "that the University consider changing accounting procedures to affect budgeting of computer costs at the departmental level with the Computer Center providing programming assistance to assure greater program efficiency," prepare a more detailed recommendation.

STUDENT WORK SPACE

Recommendations of the subcommittee for alleviating the lack of work area were reviewed. Installation of counters in the existing workroom, and conversion of the Admissions and Registration room to an open workroom were among the possibilities considered. Installation of remote facilities in Martin Hall, scheduled for August, is expected to relieve the congestion.

SOFTWARE

It was agreed that acquisition of the MARK IV software package, which will be used primarily for administrative application, falls outside the purview of the subcommittee.

4. Dr. Peck distributed a "Line Interface Base" table showing the status of lines and terminals. Use of two lines by Appalachia II District Health Department brought forth the opinion that the committee should be aware of utilization of computing resources by outside users.

MINUTES OF THE COMPUTER ADVISORY COMMITTEE MEETING, APRIL 5, 1973 (Continued)

5. Dr. Peck distributed copies of a questionnaire, issued by the Technical Advisory Subcommittee to all departments, which requests information on existing and planned remote job entry and terminal equipment.

6. Dr. Peck distributed copies of the following recommendation:

> The Technical Advisory Subcommittee of the University Computer Advisory Committee recommends that each person wishing to acquire remote job entry or terminal equipment on the campus be required by the purchasing agent to seek the advice of the Technical Advisory Subcommittee before proceeding with such acquisition. A letter from the Technical Advisory Subcommittee would accompany each requisition before a purchase order would be issued.
>
> It is further recommended that the Subcommittee be furnished a copy of each letter of intent which is given to a vendor.

In the discussion that followed, it was agreed that remote job entry or terminal equipment not intended for use with the System 370 does not fall within the jurisdiction of the subcommittee. A motion was passed that the recommendation be referred back to the subcommittee for further study.

BIOCHEMISTRY

J. K. Zimmerman (Asst Prof) gave a seminar on "Biochemistry and the Computer" to the Chemistry and Mathematics Departments at Newberry College on May 4.

J. K. Zimmerman gave a seminar on "The Direct Optical Scanning Gel Chromatography; Computer Simulations and Experimental Facts using a new Analytical Technique" to the Physical Chemistry Division of the Chemistry Department at the Georgia Institute of Technology, Atlanta on May 31.

CIVIL ENGINEERING

Myron Spector (Asst Prof) is performing research under a National Science Foundation Fellowship at the National Aeronautical and Space Administration, Manned Spacecraft Center in Houston, Tex.

Billy L. Edge (Assoc Prof) has been awarded a grant from the Water Resources Research Institute for a one-year period to complete research on the project, "Improved Strategy for Offshore Disposal of Waste Sludges and Dredged Materials."

CIVIL ENGINEERING (Continued)

Subhash C. Anand (Assoc Prof) attended the 1973 ASEE Annual Conference at Iowa State University in Ames, Iowa on June 25-27 and presented a paper entitled, "An Interaction Program Between Educators and Practitioners."

Subhash C. Anand published a paper entitled, "A Prestressed Composite Girder for Short Span Bridges" in Engineering Journal, American Institute of Steel Construction, Vol. 10, No. 2, Second Quarter, 1973.

COLLEGE OF ARCHITECTURE

Samuel Wang (Assoc Prof) had a one-man exhibition of photographs and photoserigraphs at the Gallery of Louisiana State University during April and May. His photoserigraphs were also included in New Photographics '73 exhibition at Central Washington State College, and the Annual Spring Show of the Greenville Art Guild at Greenville County Museum of Art.

Tom Turner's (Instr) vapor-glazed porcelain has recently been accepted in a National Juried show "Technology and the Artist Craftsman," being held at the Octagon Art Center, Ames, Iowa. Following summer school, Mr. Turner will be a visiting artist at the Memphis Academy of Art, Memphis, Tenn. for a three day session on vapor-glazing. During July Mr. Turner's work will be on display at the Lee Gallery, Clemson University.

Kenneth Carpenter (Assoc Prof) and Jim Washburn (Assoc Prof) participated in a conference on architecture and urban design in Moscow and Lenningrad. The conference was sponsored jointly by the American Institution of Architects and the U.S.S.R. Organization of Architects.

Ireland Regnier (Assoc Prof) had a one man show of paintings and sculpture at the Spartanburg County Art Association Gallery during the month of May in Spartanburg.

MATHEMATICAL SCIENCES

John Kenelly (Prof and Hd) and Joel V. Brawley, Jr. (Prof) have been invited to serve an additional term as Visiting Lecturers for the Mathematical Association of America during the academic year 1973-74. The Visiting Lecturer Program is sponsored by the Mathematical Association of America.

MATHEMATICAL SCIENCES (Continued)

Andrew Sobczyk (S. M. Martin Prof) was an invited participant in the National Science Foundation Conference on "The Theory of Best Approximation and Functional Analysis," held from June 11 through June 15 at Kent State University, Kent, Ohio.

Paul T. Holmes (Assoc Prof) was an invited participant in an ONR workshop on multiple time series held at the Naval Coastal Systems Laboratory, Panama City, Fla. from June 11-15.

PHYSICS AND ASTRONOMY

Beverly B. Bookmyer (Assoc Prof) received an International Travel grant from NSF for a trip to Cerro Tololo, Chile.

D. P. Miller (Assoc Prof) and Vincent G. Murphy, S.R.R.L., A.R.S., U.S.D.A. have published a paper in the Journal of Applied Crystallography, Vol. 6, April 1973, pp. 73-75 entitled, "Orientation Factors for Fiber X-ray Diffraction Data Obtained by the Precession Method."

CALENDAR OF CAMPUS EVENTS

June 27- June 28	Wed.- Thurs.	Examinations.
July 2- July 3	Mon.- Tues.	Freshman Orientation.
July 3	Tues.	Registration 2nd session summer school.
July 4	Wed.	Classes begin.
July 5& July 6	Thurs.& Fri.	Freshman Orientation.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 12 No. 23 July 15, 1973

TEACHERS LEARN FROM POLITICIANS AT TAFT SEMINAR

The traditional smoke-filled back room of American politics got a considerable airing out during a two-week seminar at Clemson University.

Clearing the smoke was a highly select group of 30 South Carolina school teachers who sat down daily, eyeball-to-eyeball, with 20 of the state's master politicians and political experts for an intensive study of government and practical politics in South Carolina.

The seminar was conducted by Clemson University's College of Liberal Arts and funded by the Robert A. Taft Institute of Government.

The institute is a bipartisan, nonprofit organization dedicated to increasing the understanding of the American constitutional system of government and the processes of the two-party system, and to helping teachers prepare their students for responsible citizenship and political participation.

Only 33 other Taft seminars are being held in 1973. Clemson's is the first one ever conducted in South Carolina.

"I was especially impressed with the discussions about the two-party system," said Mrs. Margaret T. Jolly, high school civics and government teacher from Edgefield. "I've never been particularly interested in party politics. Up to now I've considered myself an Independent, but after this seminar I've decided to make a party choice and get in there and pitch. And I'm going to encourage my students to do the same."

This infectious desire to get back and make their students really understand the nature of and involve themselves in the political system they live under is one of the prime aims of the Taft seminars.

Seminar director Prof. Charles Dunn, head of Clemson's political science department, and co-director Prof. Jack Tuttle, political science teacher put together an impressive line-up of seminar leaders, including the governor and lieutenant governor, a federal judge, municipal officials, statewide elected officials, key state legislators, state political party chairmen, journalists, and others with firsthand knowledge of practical politics in the state.

The two-week session was kicked off by an explanation of South Carolina constitutional history. The remainder of the program sliced the political picture into pieces for study, then put them back together again as the teachers asked questions, conducted independent study and gradually got a firmer mental grasp on the way South Carolinians govern themselves. (Continued on page 2.)

TAFT SEMINAR Continued

Topics covered the full spectrum of political life and structure in the state, including the role of congressional leadership, politics and problems of the executive branch, Democratic and Republican politics in the state, the judicial process, blacks and the two-party system, small town politics and problems, municipal government organization and politics, and South Carolina political history.

The 30 teachers, selected for Taft fellowships from 120 qualified applicants, agree unanimously they will return to their classrooms this fall much better equipped to make the political system come alive and, if necessary, to defend it for their students.

CLEMSON GETS KODAK GRANT -- From left, W.E. Gift, director of college relations at Tennessee Eastman Co. of Kingsport, Tenn., presents a 1973-74 Eastman Kodak Research grant of $6,000 to Prof. H. Garth Spencer, head of Clemson University's chemistry department, and Clemson President R.C. Edwards. The award will provide a fellowship for a doctoral student in chemistry, as well as an unrestricted grant to promote Clemson's graduate research chemistry program.

DEPARTMENT OF AEROSPACE STUDIES

At the invitation of the Air Force Institute of Technology, A. C. Brock (Major, USAF) attended an Alumni enrichment seminar at the Graduate Management School at Wright-Patterson Air Force Base, Ohio on June 11-15.

AGRONOMY AND SOILS

A paper has been published: K. S. LaFleur (Assoc Prof) and G. R. Craddock (Prof and Hd): "Flax growth in Cecil soil containing Mordant Violet 39." Agron. J. 65: 516-517. 1973.

BOTANY

C. J. Umphlett (Prof and Hd) presented an invited paper entitled, "A Brief Review of the Involvements of Lagenidium, an Aquatic Fungus Parasite, with Arthropods," in the Symposium: Diseases of Crustaceans sponsored by the Society for Invertebrate Pathology. The symposium was held during the annual meeting of American Institute of Biological Sciences, June 17-22, at University of Massachusetts, Amherst.

CHEMISTRY

H. G. Spencer (Prof and Hd) presented a lecture on "Transport Phenomena in Coatings," at the Polymer Conference Series, University of Utah, Salt Lake City, June 19.

ELECTRICAL AND COMPUTER ENGINEERING

A Quasi-stellar object, OQ172, has recently been discovered by Lick Observatory to have the greatest optical red shift (3.53) of any known object. (Nature, June 8, 1973). OQ172 was first discovered by L. T. Fitch (Assoc Prof) working with Doctors J. D. Kraus and R. S. Dixon at the Ohio State University Radio Observatory.

ENGINEERING RESEARCH

S. F. Hulbert (Assoc Dean) presented the following papers at the annual meeting of the American Society for Engineering Education at Iowa State University on June 26, "The Clinician-Bioengineer Interface," and "Biomaterials Education."

ENGINEERING RESEARCH (Continued)

S. F. Hulbert (Assoc Dean) served as Program Chairman for the Biomedical Engineering Division of the American Society for Engineering Education and was also elected chairman of the division for the coming year.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Harold A. Loyacano, Jr. (Asst Prof) attended and participated in the annual meeting of the Regional Research Project S-83 at Stuttgart, Ark. on June 6-10. He served as secretary for the group.

T. R. Adkins (Prof) and Glen Garris (Grad Res Asst) attended and participated in the 17th annual Work Conference on Livestock Insects in Blacksburg, Va., June 25-28. Dr. Adkins was chairman of the Section on Biting and Non-Biting Diptera.

A grant-in-aid in the amount of $750 has been given to the Dept. for research studies on cotton insects from American Hoechst. This work will be performed under the supervision of USDA workers at the Pee Dee Station.

GEOLOGY

G. M. Haselton (Assoc Prof) spoke to the Rotary Club of Toccoa, Ga. on the "Aspects of the Surficial Geology of Glacier Bay National Monument, Alaska," on June 5.

MATHEMATICAL SCIENCES

John Kenelly (Prof and Hd) served June 6-13 at Princeton, N.J. as the examination leader for the Educational Testing Service, Advanced Placement Examination on AB-Calculus.

Joel V. Brawley, Jr. (Prof) has had the following article published recently: "A Characterization of the nxn Matrices Over a Finite Field," American Mathematical Monthly, Vol. 80, No. 6, p. 670 (with L. Carlitz, Duke University).

John Kenelly has been invited to serve again as a Consultant Bureau Member for the Committee on Undergraduate Programs in Mathematics. The Mathematical Association of America sponsors visits by the consultants to individual colleges to advise on mathematical programs.

K. T. Wallenius (Prof) chaired a session of invited papers on Multiple Decision Problems at the Eastern Regional Meeting of the Institute of Mathematical Statistics held at Ithaca, N.Y. on May 30-June 1.

MATHEMATICAL SCIENCES (Continued)

K. T. Wallenius (Prof) presented a paper "On Statistical Methods in Contract Negotiations" at the Second Annual Department of Defense Procurement Research Symposium, May 1-3, held at Monterey, Calif.

K. T. Wallenius will be Director of the Contract Research Program in Probability and Statistics, Office of Naval Research, Arlington, Va. during a years leave of absence commencing July 9, 1973.

K. Alam (Assoc Prof) presented a paper "A Multiple Decision Rule" at the Eastern Regional Meeting of the Institute of Mathematical Statistics held at Ithaca, N.Y. on May 30-June 1.

POULTRY SCIENCE

The most recent issue of Poultry Science published two articles written by Clemson faculty as follows:

"Objective Measurement of Sperm Motility" by K. A. Wall (Grad Stu) and M. A. Boone (Prof).

"Volatile Fatty Acids in Contents of Pendulous Crops and Normal Crops of Turkey Hens," by J. E. Jones (Assoc Prof), W. V. Chalupa (former Assoc Prof of Dairy Science) and J. C. Ellers (Lab Tech).

TEXTILE DEPARTMENT

Thomas D. Efland (Assoc Dean and Dir of Research) and Edward A. Vaughn (Asst Prof) are returning to Clemson after spending several weeks in consultation with the mill people of Japan to find out what they like about U.S. cotton, what they dislike about U.S. cotton, whether or not they have had any processing problems with U.S. cotton, etc. Dean Efland also visited Korea and Dr. Vaughn also visited Taiwan, Hong Kong, the Philippines, Thailand and India. The arrangements for these visits were made by Cotton Council International.

John J. Porter (Assoc Prof) was invited to attend the Gordon Research Conference, New London, N.H., July 9-14. This conference dealt with Textiles and Fiber Science.

CONTINUING ENGINEERING EDUCATION

Continuing Engineering Education will present a short course on "Industrial Corrosion-Causes and Cures" on July 24, 1973. This short course is sponsored by the Materials Engineering Program. Dr. James S. Wolf (Assoc Prof) will teach the course.

It is the purpose of this short course to present the basic ideas of corrosion in a quantitative, non-mathematical manner so that they may be readily understood by all who attend.

The guiding philosophy in Corrosion Engineering is that information be used in a "preventative" manner; thus, the material presented will be of importance to the Design/Mechanical Engineers initially responsible for materials selection in industrial applications. However, it is also recognized that corrosion problems arise in virtually every existing installation. For this reason, the subject matter of this seminar is also directed toward those responsible for plant operations and maintenance - including Plant Engineers and Maintenance Technicians. This short course is thus designed for both the experienced and the inexperienced personnel.

A special feature of this program will be pictoral illustration intended to assist those concerned in recognizing corrosion problems when and where they do occur. The principal remedial measures for each class of corrosion problem will be discussed and illustrated.

CONTINUING ENGINEERING EDUCATION

Continuing Engineering Education will present a short course in "Industrial Pollution Control" on July 16-20, 1973. This short course is sponsored by Chemical Engineering Department. Dr. F. C. Alley (Prof) will teach the course. He will be assisted in the course by a doctoral student in Chemical Engineering and several guest lecturers.

This course is particularly designed for the plant engineer or technical service engineer who will from time to time be faced with a pollution control problem. The material covered will also be valuable for the engineer in management who must have a knowledge of problems associated with compliance with state and federal control regulations.

In addition to current control technology, design procedures and their applications will be stressed.

Enrollment interest has been sufficient to warrant presenting a repeat of the short course during the week of July 23-27.

All lecture and laboratory sessions will be held in Earle Hall.

CONTINUING ENGINEERING EDUCATION

A series of four workshops, Interactive Computing for High School Students, has been and will be held, each of one week duration from June 4 - August 6, 1973.

The purpose of this program is to give high school students the opportunity to work with a digital computer. For those who have little or no previous computer experience lectures will also be available. Each student will be encouraged to progress at his own rate. Trained assistance with programming problems will be available at all levels. Participants will work with the TSS/8 computer which will be equipped with sixteen terminals.

The program is sponsored by the Electrical and Computer Engineering Dept. The workshop staff includes Dr. R. W. Snelsire (Assoc Prof) and Dr. M. L. Wolla (Prof). Dr. Snelsire is also the program director.

Approximately thirty-five scholarships for this workshop have been donated through the efforts of the Institute of Electrical and Electronics Engineers, Inc. to assist students in attending these workshops. Scholarship donors include:

Carolina Light and Power Company
Central Savannah River Section of IEEE
Coastal S.C. Section of IEEE Membership
Columbia Section of IEEE
Lyles, Bissett, Carlisle and Woolfe, Inc. (Columbia Section of IEEE)
National Cash Register, Postal Systems Division
Piedmont Section of IEEE
Robert W. Chapman Company
S. C. Electric and Gas Company
Southern Bell Telephone and Telegraph Company

Applications for the workshop are being taken by Continuing Engineering Education Department, College of Engineering.

CALENDAR OF CAMPUS EVENTS

July 17- Tues.- July 20 Fri.	State 4-H Conference, Campus.
July 17- Tues.- July 19 Thurs.	Dr. W.C. Whitten, Professor of Economics, will be chairman for a Professional Development course entitled, "Capital Expenditures Analysis." This course, sponsored by the College of IM&TS, will be held in Sirrine Hall.
July 19- Thurs.- July 20 Fri.	The College of IM&TS and the American Association of Certified Public Accountants will co-sponsor a Professional Development Program in Sirrine Hall. Dr. J.A. Turner, Jr. is the course chairman.
July 23- Mon.- July 27 Fri.	A Short Course in "Industrial Pollution Control" sponsored by Chemical Engineering Department.
July 24 Tues.	Short Course in "Industrial Corrosion-Causes and Cures" sponsored by the Materials Engineering Program.
July 28 Sat.	Graduate School Foreign Language Test.
July 29- Sun.- Aug. 11 Sat.	Girls Tiger Basketball Camp.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

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Vol. 12 No. 24 August 1, 1973

CLEMSON AT SUMTER TRANSFERRED TO USC

An agreement which set Friday, July 27, as the date for the transfer of operations of Clemson University's two-year center at Sumter to University of South Carolina administration was reached July 23 by USC and Clemson officials.

This action followed a request made May 28 by the Sumter County Commission for Higher Education to terminate, by mutual agreement, the contract under which Clemson operated the two-year college parallel program. Commission Chairman H.D. Barnett cited the commission's "somewhat disappointment with the growth in student enrollment (placing them) in the position of facing budgetary obstacles which will be insurmountable."

In response to the request, which was made by mail without previous discussion, President Edwards said Clemson would begin an immediate analysis of the problems and solutions involved. He included the utilization of the physical facilities in accordance with commitments made by Clemson University to HEW in obtaining funds for construction of facilities; problems relating to legislation and appropriations by the General Assembly to Clemson for support and operating of its activities at Sumter; and finally, an overriding concern about the status of faculty and staff and the commitments already given to present students.

"We have provided all the services which were initially requested at the time the establishment of the Clemson University Center at Sumter was under consideration," President Edwards said.

"In addition, we have provided services beyond those originally contemplated and essential to meet the requirements for accreditation by the Southern Association of Colleges and Schools."

Following the request to terminate, the Sumter County Commission for Higher Education made public its desire to become a regional campus of the University of South Carolina.

On July 23 representatives from both institutions met on the Clemson campus pursuant to authority from the State Budget and Control Board and the S.C. Commission on Higher Education and finalized the transfer agreement.

Letters have been sent to each student and faculty member at the Sumter campus containing information pertinent to their areas of concern. Both USC and Clemson officials emphasized that an orderly transition without any interruption of services was of utmost concern to both groups.

Clemson's program at Sumter was established and opened in 1966 as the direct response to a request to Clemson from a delegation of Sumter citizens.

CLEMSON AT SUMTER Continued

"Clemson has appreciated the priviledge of serving the people of the Sumter area," President Edwards said, "and it has been our desire to do everything possible to assure the Sumter area citizens that they continue to have an educational institution that will best serve their total needs. We feel a deep sense of responsibility to the faculty and the students of Clemson University at Sumter and to the people of the Sumter community. We are happy that the academic program that Clemson has established in Sumter will continue uninterrupted."

AGRICULTURAL COMMUNICATORS WIN AWARDS

Clemson University agricultural writers, broadcasters and photographers have won seven awards from the American Association of Agricultural College Editors.

Five were first place awards for Clemson's agricultural press services to both daily and weekly newspapers, a video tape television feature, television news spot, and a popular miscellaneous publication.

A second place award for large exhibits and a third place award for slide/tape presentations were received.

Entries were submitted by the university's department of public relations and Communications Center. They were judged by both commercial and college communicators. Ratings were accepted for the University during the annual meeting of the association at Guelph in Ontario, Canada, by Luke Hamilton, Extension Information Specialist; Doris Timmerman, Assistant Director for Publications and Extension Publications Editor; and Bob Austin, Radio-TV Editor.

COMMUNICATIONS CENTER CITED

At the American College Public Relations Association National Conference in San Diego, Clemson University received the first runner-up award in the Total Electronics Media Competition for 1973. Universities competing submitted examples of their television, radio, motion picture and slide/tape productions. Harry Durham, Director of the University Communications Center, accepted the award for the University.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 12, 1973

President Fulton called the meeting to order at 4:15. The minutes of the May meeting were revised to clarify the nature of the meeting between President Fulton, Vice President West, Dean Hurst and University Vice President Wilson. Regarding resolution FS-73-5-6, Professor Jacobus pointed out that the Redfern Health Center needed additional personnel, renovation of facilities, and sufficient funding in order to provide services to faculty members. Regarding resolution FS-73-5-7 and its amendment, Professor Roberts requested that the adjectives indicating the nature of the votes be struck or that numbers of those voting pro and con be inserted. The May minutes were approved incorporating all of these suggestions for revision.

President Fulton announced that Professor A. S. Tombes had been elected to fill the unexpired term of Professor Wallenius, who had resigned, for the College of Physical, Mathematical and Biological Sciences. In addition, President Fulton announced that Jeanette Bernhardt had been elected as the alternate for M. A. Kelly in the College of Nursing; Dorothy C. Porter is the alternate Senator from the Library; W. B. Barlage is the summer alternate for W. F. Beckwith; C. B. Russell is the summer alternate for P. T. Holmes; B. J. Skelton was substituting for J. R. Hill, and E. P. Willey was substituting for A. L. Recoulley.

Professor Steirer moved that the rules be suspended in order to allow Committee Reports and New Business to precede the President's Report. His motion carried.

Committee Reports

For the Admissions and Scholarship Committee the Chairman, Professor Steirer moved the adoption of a RESOLUTION ON OPTIONAL FINAL EXAMINATIONS (FS-73-6-1).

> WHEREAS, Part IV of the Scholastic Regulations Section, the paragraph titled Semester Grades on page 100 of the Clemson University Announcements now stipulates:
>
> The standing of a student in his work at the end of a semester is based upon daily classwork, tests or other work, and the final examinations. Faculty members may excuse from the final examinations all students having the grade of A on the work of the course prior to the final examination, but for all other students written examinations are required in all subjects at the end of each semester, except in certain laboratory or practical courses in which final examinations are not deemed necessary by the department faculty.

Now therefore, BE IT RESOLVED that said paragraph titled Semester Grades be replaced by:

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 12, 1973 (Continued)

> The standing of a student in his work at the end of a semester may be based upon daily classwork, tests or other work, and the final examinations. The individual faculty member will have the option of determing the relative weights of all work in assigning the final grade and in allowing exemptions from the final examination. Written final examinations in any course will be discretionary with the individual faculty member.

Professor Steirer pointed out that current regulations regarding examinations in courses are "much breached." Professor Knapp noted that the rule is impossible to enforce since only the professor knows what constitutes a "final exam." Professor Adkins asked about the function of final exams; Professor Steirer responded that the regulations say merely that they are part of the final grade. Professor Baron argued that the decision regarding whether or not a final exam be given in a course ought to be left up to the person teaching the course. Professors Abernathy, Roberts, and Bauld spoke against the resolution, Professor Bauld arguing that final exams were necessary to achieve "uniformity and a high level of academic endeavor."

The resolution carried by a vote of 17 to 14. A request for a Roll Call vote failed to pass. Professors Bauld, T. Skelton, Cross, Arnold, and Russell requested to go on record as voting against the resolution.

Professor Steirer moved the adoption of a RESOLUTION PRESCRIBING GPR FOR GRADUATES IN MAJOR (FS-73-6-2).

> WHEREAS it is now possible for students to graduate with a grade-point ratio of less than 2.00 in their major field of study,
>
> BE IT RESOLVED that the following be included in the Scholastic Regulations as listed in the 1972-73 Catalog on page 108 under the heading "Special Graduation Requirements."
>
> A cumulative grade-point ratio of 2.00 is required for graduation. (New material follows). In addition, a college or department will require a cumulative grade-point ratio of 2.00 in such courses as may be determined by that college or department as constituting the major field of study.

After a brief discussion the resolution passed unanimously.

Professor Steirer moved the adoption of a RESOLUTION ON CLASS ATTENDANCE REGULATIONS (FS-73-6-3) which stated that faculty members will "declare the policy on attendance and grade requirements that will be implemented in each course at the beginning of each semester."

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 12, 1973 (Continued)

Professor Steirer argued that grievances are apt to be brought before the Student Relations Committee under the New Class Attendance Regulations unless faculty members stipulate their rules. Professor Bauld argued that the resolution should require that the policy be provided in writing to students and offered an amendment to that effect; Professor West provided a revised wording of the same amendment. Professor Sherrill requested tha the phrase "at the beginning" in the Resolution go at the beginning of the statement. Professor Baron argued that "grade requirements" should not be included as part of a rule regarding Class Attendance. Professor Abernathy moved that the resolution be sent back to the Admissions and Scholarship Committee for revision. His motion carried.

Professor Steirer moved the adoption of a RESOLUTION ON THE HONOR SYSTEM (FS-73-6-4).

BE IT RESOLVED that the following replace the present "Rules and Regulations on Cheating and General Classroom Dishonesty" found on pages 190-191 of the 1972-73 Student Handbook.

I. Cheating

A. Cheating includes giving or receiving unauthorized aid on any academic work.
B. Plagiarism, a form of cheating, includes the copying of language, structure, or ideas of another and passing them off as one's own.
C. All academic work submitted for grading contains an implicit pledge by the student that ne has received no unauthorized aid.
D. Cheating is a violation of the Student Regulations as well as Academic Regulations.

II. Penalties

A. A student guilty of the first offense of cheating may receive a maximum penalty of a grade of "F" for the course; the instructor will determine the final grade.
B. A student guilty of the second offense of cheating will receive a grade of "F" for the course and will be suspended for one or more semesters.

III. Procedure

A. Each student is responsible for his conduct. Students may report violations to the instructor or to the Attorney General of the Student Body.
B. Reported violations will be investigated, heard, and appealed as other violations of Student Regulations.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 12, 1973 (Continued)

Professor Steirer noted that several modifications had been made in the policy originally discussed with Mr. Vic Bost, Assistant to the Vice President for Student Affairs, at the special Senate meeting in March. In particular, there is now in Part IC of the Resolution simply an implicit, not written, pledge not to cheat. Penalties, Professor Steirer pointed out, will come only after investigation of the charge has been carried through the Student Judicial System. It was also noted that the penalties for the first offense are now so severe that cases are often not reported.

The resolution passed.

Professor Steirer moved the adoption of a RESOLUTION ON AN ADVISORY COMMITTEE FOR THE STUDENT RELATIONS COMMITTEE (FS-73-6-5).

WHEREAS, the Rules and Procedures of the Student Relations Committee have come under criticism from various faculty members, and

WHEREAS, many faculty members do not understand the Rules and Procedures of said Committee, be it

RESOLVED that an advisory committee be established in order to examine said Rules and Procedures with the objective of determining if faculty rights are being undermined as charged and advising, if necessary, the Student Relations Committee on how better to protect those rights. The advisory committee should be chaired by the Chairman of the Faculty Senate Welfare Committee, and include two other members of the Faculty Senate appointed by the President of the Senate plus two non-Senate faculty members invited to serve by the President of the Senate. The Chairman of the Student Relations Committee shall serve as a non-voting, consulting member of the advisory committee. The term of the Committee shall be for a period of six months.

Professor West argued that problems pertaining to the Student Relations Committee come under the purview of the Senate's Welfare Committee; Professor Cross agreed. It was suggested that faculty members unhappy with the operation of the Student Relations Committee could take the matter to the Welfare Committee and that another committee was unnecessary. Professor Roberts asked what University procedure gives faculty members rights equal to those enjoyed by the students. Professor Steirer stated that the operating procedures of the committee have been reviewed by General Rigsby, and it is his opinion that they do not compromise the rights of faculty members. He noted, however, that there is some dissatisfaction with the committee, and that since the committee depends upon the voluntary cooperation of faculty members, he felt it was desirable to try to eliminate this dissatisfaction.

The resolution carried by a vote of 15 to 14.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 12, 1973 (Continued)

Professor Steirer moved the adoption of a resolution (FS-73-6-6) concerning Senate finances. Professor Dillon stated that the Faculty Senate ought to have a budget for printing costs and other expenses. Professor West moved that the resolution be referred to the Policy Committee. His motion carried.

Professor T. Skelton reported on action taken by the Policy Committee. Some faculty members have requested a change in Policy 5034 of the Clemson University Manual on Business and Financial Affairs to permit use of personal vehicles for official travel to points less than 300 miles from Clemson. The committee recommended that this matter be considered by the Motor Pool Committee.

Professor Skelton then introduced a RESOLUTION ON AN AD HOC COMMITTEE ON FACULTY WORK LOADS (FS-73-6-7).

> WHEREAS each college uses a different basis for determining work loads, and
>
> WHEREAS this may be desirable or it may be desirable to have a University policy for determining faculty work loads;
>
> THEREFORE BE IT RESOLVED that an Ad Hoc Committee be appointed to study faculty work loads and report to the Faculty Senate. This Ad Hoc Committee should consist of one member from the Welfare Committee, one from the Policy Committee, and one administrator.
>
> The motion carried unanimously.

Professor Skelton also noted that his committee is considering several methods for electing faculty members to serve on University councils and committees. The committee has also considered the evaluation of academic administrators by faculty. However, since a University committee already may be looking into this matter, the Policy Committee will seek to determine the nature of the work being done by the committee (if such a committee exists) before working on the matter.

For the Research Committee Professor Bauld reported that its main concern this year will be the organizational structure of the University's Office of Research. In particular the question of whether or not this office is providing the kind of services faculty members need will be investigated.

For the Welfare Committee, Professor Dillon reported that his group had discussed faculty evaluations, faculty housing, retirement programs, and faculty salary differentials. He also made the following formal statement: "The Welfare Committee of the Faculty Senate would like to express its appreciation to Dean Hurst for his willingness to cooperate on the problem of unusual salary differentials by asking for lists of such differentials from the dean of each college with the view that such differentials be corrected. It is requested that a report of progress in correcting differentials be made to the Faculty Senate at his earliest convenience."

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 12, 1973 (Continued)

President's Report

President Fulton reported on the meeting of the Senate's Advisory Committee on May 30. The Committee had approved the request of Professor Adkins to be transferred from the Research to the Welfare Committee. The Ad Hoc Committee on the Motor Pool had also been established: Professor Ezell (Chairman), Professor Hill, and Ms. Kelly.

President Fulton also reported that at the Undergraduate Council meeting on May 24 the highest priority had been given to the matter of approving degrees for students who leave Clemson after their junior year to work for professional degrees.

President Fulton pointed out that the Senate's resolution on annual leave for 12-month faculty members (FS-73-5-3) will not be submitted to the Board of Trustees at their next meeting. Professor Hedden moved a RESOLUTION OF CONCERN BY THE FACULTY SENATE OVER DELAY IN APPROVING THE NEW LEAVE POLICY (FS-73-6-8).

WHEREAS the Faculty Senate had passed the revised policy on Annual Leave (FS-73-5-3) unanimously, and

WHEREAS delay in its implementation will be to the detriment of the welfare of some 12-month faculty members;

THEREFORE BE IT RESOLVED that this Resolution (FS-73-5-3) be brought to the attention of the Board of Trustees at their next meeting.

The motion passed unanimously.

President Fulton stated that a report by the Commission on Higher Education shows that Clemson's 1972 freshmen had the highest mean SAT scores of any state-supported institution in South Carolina. The same report shows that among the South Carolina public, four-year colleges and universities, Clemson University had the highest percentage of its 1972 freshmen in the top 10%, top 20%, top 30%, top 40%, and top 50% of their high school classes.

President Fulton also reported that the Graduate Council had taken the position that it was the appropriate body to approve candidates for graduate degrees.

On the widening of Highway 93 through the University campus, President Fulton stated that the only University committee other than the Executive Officers which considered this development was the Landscaping and Site Development Committee. Since, in effect, the committee has only 1/2 a faculty member on it,

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 12, 1973 (Continued)

President Fulton has requested the Policy Committee to consider the question of additional faculty representation.

President Fulton then distributed data on the University budget prepared by Mr. Melvin Barnette, the Budget Director. He noted that the data are in substantial disagreement with those provided on a similar sheet by President Edwards to an Ad Hoc Committee from the Faculty Senate earlier in the year. He pointed out that the data on the two sheets were gathered at different times each fiscal year. He then suggested that the Senate should consider reactivating this committee in the future to study the data.

President Fulton then read the following letter which he had personally sent to Professor Hulbert:

May 28, 1973

Dr. Samuel F. Hulbert
Associate Dean
Engineering Research & Interdisciplinary Studies

Dear Dr. Hulbert:

It was with considerable regret that I learned of your acceptance of the position of Dean of Engineering at Tulane University. Thus, Clemson University has lost one of the most prominent members of its faculty.

Your research in bioengineering, which has brought you world fame, has brought credit as well to all the Clemson University faculty. Our faculty will suffer a distinct loss with your departure.

I sense the professional opportunities you will enjoy in your association with Tulane University with its fine medical college and with its excellent program in bioengineering.

On behalf of the faculty of Clemson University, I therefore congratulate you and wish you well and thank you for your meritorious service to Clemson University.

Pres. Fulton stated that he would like to send similar letters to faculty members whenever their services to South Carolina, the nation, and the world had brought them--and therefore the University--international acclaim.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 12, 1973 (Continued)

President Fulton then reported on a recent meeting of the Academic Deans. Since the Continuing Education Center now seems likely to be built, President Edwards has appointed a committee to make recommendations for use of this Center. The committee will have as academic members one faculty member from each college, appointed by the college deans. President Fulton had requested that the Faculty Senate be represented, particularly in view of the fact that President Edwards had indicated support for having faculty club facilities in the new Center. Professor Shannon has been appointed to represent the Senate on this committee.

President Fulton announced that the Vice President for Business and Finance, Melford A. Wilson, has been gathering data on faculty salaries at various institutions similar to Clemson, including Georgia Tech, Auburn, and VPI. Complete salary rolls are being obtained with a view toward using them as a basis for making salaries at Clemson more competitive with those elsewhere. Information gleaned from these rolls will be used in determining the 1973-74 University operating budget.

President Fulton will send to each Senator copies of information given him by President Edwards at the deans' meeting relevant to the request by the Sumter County Higher Education Commission to terminate this July its agreement with Clemson University for Clemson to operate Clemson University at Sumter.

Finally, President Fulton reported that Dr. and Mrs. J. Wilson Newman have announced a deferred gift to the University for an endowed chair in Natural Resources Engineering which will go to the Agricultural Engineering Department.

The meeting adjourned at 7:10 p.m.

Russell D. Shannon, Secretary

Member absent: A. H. Holt

COLLEGE OF ENGINEERING

L. C. Wilcox (Dean) and J. L. Edwards (Asst to the Dean) participated in an Education-Industry-Government Seminar in Columbia on July 18. This seminar was sponsored by the South Carolina Society for Professional Engineers and was attended by leaders in Education, Industry and Government.

GRADUATE COUNCIL MINUTES, MAY 9, 1973

The meeting of the Graduate Council was called to order by Dean Schwartz. Those present were: Dr. Allen, Dr. Idol (for Dr. Bolen), Dr. Camper, Dr. Freeze, Professor Lee (for Professor Means), Dr. Brawley, Dr. Dysart, Dr. Macaulay, and Mr. Mushinsky.

The minutes of the April 13, 1973 meeting were approved as distributed.

The following courses required administrative approval only:

Arch 881 - Architectural Structural Seminar (Repl. Arch 891)
Arch 882 - Architectural Structural Seminar (Repl. Arch 892)
Arch 883 - Architectural Structural Seminar (Repl. Arch 893)
Arch 891 - Architectural Thesis (Repl. Arch 858)
CRP 891 - Planning Thesis (Repl. CRP 864).

Candidates for the Masters and PhD degrees to be conferred May 11, 1973 were approved.

The following subcommittee was appointed to study graduate admission requirements: Dr. Camper, chairman, Dr. Idol (or representative from Liberal Arts), Dr. Macaulay, and Mr. Mushinsky.

A proposed policy regarding awarding of graduate degrees was distributed and discussed. A motion was made to approve the following resolution, seconded, and passed with one abstaining:

POSITION STATEMENT ON APPROVAL OF CANDIDATES FOR GRADUATE DEGREES

> It is the position of the Graduate Council that they are duly authorized to represent the faculty on the policies, procedures, and requirements concerning graduate students and, therefore, constitute the appropriate body according to the Faculty Manual to approve candidates for graduate degrees.

Duplication of degrees was discussed and a motion made, seconded, and passed to adopt the following policy:

POLICY CONCERNING DUPLICATION OF DEGREES

> Applicants holding a Master of Science or Master of Arts degree are eligible to seek a second master's degree provided the area of study is academically distinct from the previous area of study, and that this second degree is appropriate for professional advancement. Requirements for the second master's degree shall not duplicate or utilize any work credited toward previous degrees.

Appreciation was expressed to Dr. Camper and the members of the Thesis Manual subcommittee for the diligent and excellent work performed

GRADUATE COUNCIL MINUTES, MAY 9, 1973 (Continued)

in rewriting the Thesis Manual. After a review of the proposed manual, Dr. Camper made a motion to accept the manual in principle subject to additional editorial changes. The motion was seconded, and passed unanimously.

A departmental request to continue carrying a student as a Graduate Assistant after she had received her degree was discussed. A Graduate Assistant was defined as one who is a candidate for a degree and is enrolled. Therefore, the department's request was denied. The decision was approved, seconded, and passed with one abstaining.

Mr. Mushinsky presented information about the Graduate Student Association.

A motion was made, seconded, and passed to adjourn.

OFFICE OF UNDERGRADUATE STUDIES

Dean Claud B. Green has reviewed a critical study of Paul Hamilton Hayne, South Carolina poet, by Rayburn S. Moore in the June, 1973, issue of the South Carolina Review.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

W. A. Tinsley (Assoc Prof) co-authored with C. R. Hoglund (Mich State Univ) a paper entitled, "Financial Planning for Dairy Herd Expansions," which was published in Journal of Dairy Science, Vol. 56, June 1973.

AGRICULTURAL ENGINEERING

Frank H. Hedden (Assoc Prof) presented a paper entitled, "An Extension Program to Improve Rural Housing," at the annual meeting of the American Society of Agricultural Engineers held in Lexington, Ky. June 18-21.

R. A. Spray (Asst Prof) presented a paper entitled, "Filtering Algae with Newspaper," at the annual meeting of the American Society of Agricultural Engineers held in Lexington, Ky. June 18-21.

Jerry R. Lambert (Prof) and C. E. Hood (Assoc Prof) presented a paper entitled "Individually Paced Instruction in Computational Systems" at the annual conference of the American Society for Engineering Education held in Ames, Iowa, June 25-28.

AGRICULTURAL ENGINEERING (Continued)

Jerry B. Davis (Asst Ag Engr) was co-author on a paper entitled, "Distribution of Granular Fertilizer and Wheat Seed by a Centrifugal Distributor," presented by Dr. C. E. Rice at the annual meeting of the American Society of Agricultural Engineers held in Lexington, Ky., June 18-21.

AGRONOMY AND SOILS

K. S. LaFleur (Assoc Prof) attended the annual regional S-78 committee meeting July 10-12 in Washington, D.C. He spoke on the characterization of prometryne movement in soil columns and field plots.

BIOCHEMISTRY

J. M. Shively (Prof and Hd) was a co-author on a recent article in the Journal of Bacteriology (113: 433-444) entitled "Ultrastructural properties of the extra membranes of Escherichia coli olla as revealed by freeze-fracturing and negative-staining techniques."

J. M. Shively accomplished collaborative research with Dr. C. Peter Wolk, MSU/AEC Plant Research Laboratory, Michigan State University, East Lansing during the week of June 17. He also presented an invited seminar to the faculty and graduate students of the Plant Research Laboratory entitled, "Carboxysomes: Functional Organelles in procaryotic cells."

J. M. Shively presented an invited seminar entitled, "Carboxysomes: Functional organelles in procaryotic cells" to the faculty and graduate students of the department of Microbiology, University of Michigan Medical School, Ann Arbor, June 21.

J. M. Shively and G. L. Powell (Assoc Prof) participated in a Gordon Research Conference on Lipid metabolism, Meriden, N.H. on June 10-15.

ELEMENTARY AND SECONDARY EDUCATION

Elizabeth B. Galloway (Asst Prof) and Gordon W. Gray (Prof) have had a monograph, Teaching Language Arts Skills to Disadvantaged Children, published in the Educational Resources Information Center Clearinghouse on Reading and Communication Skills. An abstract was published in the June 1973 issue of Research in Education.

MATHEMATICAL SCIENCES

W. Robert Boland (Assoc Prof) and R. E. Haymond (Prof) presented a paper entitled, "The Numerical Solution of Fredholm Integral Equations with Rapidly Varying Kernels" at the SIAM 1973 National Meeting and First Langley Conference on Scientific Computing held June 18-21 at Hampton, Va.

John Kenelly (Prof and Hd) presented an invited, hour address on June 15 at Bellingham, Wash. to a joint meeting of the Mathematical Association of America, Society for Industrial and Applied Mathematics, and the American Mathematical Society. The address entitled, "The Challenge Spectrum in Several Mathematical Sciences," dealt with contemporary curriculum philosophy.

Thomas G. Proctor (Assoc Prof) has had the following articles published: "Periodic Solutions for Perturbed Nonlinear Differential Equations, II," Proc. Amer. Math. Soc., Vol. 31, (1972), p. 219. "Solutions of Some Periodic Stieltjes Integral Equations," with G. W. Marrah, Proc. Amer. Math. Soc., 34 (1972), p. 121.

Robert E. Fennell (Asst Prof) attended the Second Conference on Societal Problems as an invited participant. The conference, sponsored by SIAM Institute for Mathematics and Society, was held at the Sterling Forest Center in Sterling Forest, N.Y., from June 29 - July 2.

PHYSICS AND ASTRONOMY

M. J. Skove (Alumni Prof) attended a NSF workshop on the PSI method of instruction at the Massachusetts Instiute of Technology from June 11-27.

A. L. Laskar (Assoc Prof) attended the International Conference on "Lattice Defects in Ionic Crystals" at Marseille-Luming (France) on July 2-6. He visited Laboratoire d' Electrochimie of Paris University and C.E.N. Laboratory at Saclay where he gave a talk on "Isotope Effect on Diffusion in Ionic Crystals."

A. L. Laskar and J. Sharma, of Picatinny Arsenal, Dover, N.J. have published a paper in the Journal of Physics and Chemistry of Solids, Vol. 34, pp. 989-993 entitled, "Self-diffusion of Potassium in Potassium Azide."

ZOOLOGY

W. K. Willard (Assoc Prof) presented an invited seminar on June 14 at Tech Aqua Biology Station, Center Hill Reservoir, near Cookeville, Tenn.

COMMUNICATIONS CENTER

At the American College Public Relations Association National Conference in San Diego, Harry Durham was elected to the Board of Trustees of the American College Public Relations Association. He will serve one year representing member institutions in the five state Mason-Dixon District.

CALENDAR OF CAMPUS EVENTS

August 4 Sat.	Classes meet.
August 8& Wed.& August 9 Thurs.	Examinations.
August 11 Sat.	Graduation.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.